```
=> d his
```

L4

L11

(FILE 'HOME' ENTERED AT 18:30:53 ON 20 DEC 2006)

FILE 'REGISTRY' ENTERED AT 18:31:02 ON 20 DEC 2006
L1 STRUCTURE UPLOADED

FILE 'STNGUIDE' ENTERED AT 18:31:28 ON 20 DEC 2006

FILE 'REGISTRY' ENTERED AT 18:32:28 ON 20 DEC 2006

L2 STRUCTURE UPLOADED

L3 8 S L2 SSS SAM

FILE 'STNGUIDE' ENTERED AT 18:33:13 ON 20 DEC 2006

FILE 'REGISTRY' ENTERED AT 18:33:32 ON 20 DEC 2006 698 S L2 SSS FULL

FILE 'HCAPLUS' ENTERED AT 18:33:51 ON 20 DEC 2006 L5 267 S L4

FILE 'STNGUIDE' ENTERED AT 18:33:58 ON 20 DEC 2006

FILE 'REGISTRY' ENTERED AT 18:36:06 ON 20 DEC 2006

L6 STRUCTURE UPLOADED

L7 19 S L6 SSS SAM

FILE 'STNGUIDE' ENTERED AT 18:36:44 ON 20 DEC 2006

FILE 'HCAPLUS' ENTERED AT 18:37:29 ON 20 DEC 2006

L8 0 S L5 AND SACCHARIDE

L9 94657 S POLYSACCHARIDE

L10 5 S L5 AND L9

FILE 'STNGUIDE' ENTERED AT 18:38:44 ON 20 DEC 2006

FILE 'REGISTRY' ENTERED AT 18:40:02 ON 20 DEC 2006

STRUCTURE UPLOADED

L12 19 S L11 SSS SAM

L13 8234 S L11 SSS FULL

FILE 'HCAPLUS' ENTERED AT 18:40:44 ON 20 DEC 2006

L14 1602 S L13

L15 53 S L14 AND L9

L16 20 S L15 AND 1800<=PY<=2002

FILE 'STNGUIDE' ENTERED AT 18:42:17 ON 20 DEC 2006

FILE 'HCAPLUS' ENTERED AT 18:50:35 ON 20 DEC 2006

L17 59 S L14 AND L5

L18 1 S L17 AND L9

FILE 'STNGUIDE' ENTERED AT 18:51:16 ON 20 DEC 2006

FILE 'HCAPLUS' ENTERED AT 18:54:00 ON 20 DEC 2006

E PAPER+ALL/CT

L19 89 S L14 AND PAPER

L20 7 S L19 AND 16

L21 2 S L19 AND L16

FILE 'STNGUIDE' ENTERED AT 18:55:11 ON 20 DEC 2006

FILE 'HCAPLUS' ENTERED AT 18:59:51 ON 20 DEC 2006 L22 56 S L19 AND 1800<=PY<=2002 42 -- 11

L23 4 S L22 AND L5

FILE 'STNGUIDE' ENTERED AT 19:01:44 ON 20 DEC 2006

FILE 'STNGUIDE' ENTERED AT 19:49:46 ON 20 DEC 2006

FILE 'HCAPLUS' ENTERED AT 19:51:58 ON 20 DEC 2006 L24 33 S L15 NOT L16

FILE 'STNGUIDE' ENTERED AT 19:54:10 ON 20 DEC 2006

FILE 'HCAPLUS' ENTERED AT 19:55:09 ON 20 DEC 2006

L25 1810 S L14 OR L4 L26 1810 S L14 OR L5

L27 40 S L26 AND ?SACCHARIDE

L28 53 S L14 AND L9 L29 36 S L27 NOT L10 L30 5 S L29 NOT L28

chain nodes : 7 8 9 10 17 18 19 20 21 22 27 28 33 36 37 38 ring nodes : 1 2 3 4 5 6 11 12 13 14 15 16 chain bonds : 3-7 7-8 8-9 8-10 8-21 9-22 10-27 11-22 12-20 13-19 14-18 15-17 17-33 18-36 19-37 20-38 21-28 ring bonds : 1-2 1-6 2-3 3-4 4-5 5-6 11-16 11-12 12-13 13-14 14-15 15-16 exact/norm bonds : $7-8 \quad 8-9 \quad 8-10 \quad 8-21 \quad 11-16 \quad 11-12 \quad 12-13 \quad 13-14 \quad 14-15 \quad 15-16 \quad 17-33 \quad 18-36 \quad 19-37 \quad 20-38 \quad 19-37 \quad 20-38 \quad 18-36 \quad 19-37 \quad 20-38 \quad 20$ exact bonds : 3-7 9-22 10-27 11-22 12-20 13-19 14-18 15-17 21-28 normalized bonds : 1-2 1-6 2-3 3-4 4-5 5-6

Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:CLASS 8:CLASS 9:CLASS 10:CLASS 11:Atom 12:Atom 13:Atom 14:Atom 15:Atom 16:Atom 17:CLASS 18:CLASS 19:CLASS 20:CLASS 21:CLASS 22:CLASS 27:CLASS 28:CLASS 33:CLASS 36:CLASS 37:CLASS 38:CLASS

L1 STRUCTURE UPLOADED

=> d l1 L1 HAS NO ANSWERS L1 STR

Roy P. Issac

$$\begin{bmatrix} 0 & -10 & & & \\ 0 & & & & \\ 0 & & & & \\ 0 & -10 & & & \\ 0 & & & & \\ 0 & -2 & & & \\ 0 & -2 & & & \\ \end{bmatrix}$$

Structure attributes must be viewed using STN Express query preparation.

=> fil stng COST IN U.S. DOLLARS

SINCE FILE TOTAL ENTRY SESSION

0.65

0.44

FULL ESTIMATED COST

FILE 'STNGUIDE' ENTERED AT 18:31:28 ON 20 DEC 2006 USE IS SUBJECT TO THE TERMS OF YOUR CUSTOMER AGREEMENT COPYRIGHT (C) 2006 AMERICAN CHEMICAL SOCIETY, JAPAN SCIENCE AND TECHNOLOGY CORPORATION, AND FACHINFORMATIONSZENTRUM KARLSRUHE

FILE CONTAINS CURRENT INFORMATION. LAST RELOADED: Dec 19, 2006 (20061219/UP).

Uploading THIS COMMAND NOT AVAILABLE IN THE CURRENT FILE Do you want to switch to the Registry File? Choice (Y/n):

Switching to the Registry File...

Some commands only work in certain files. For example, the EXPAND command can only be used to look at the index in a file which has an index. Enter "HELP COMMANDS" at an arrow prompt (=>) for a list of commands which can be used in this file.

=> FILE REGISTRY

COST IN U.S. DOLLARS SINCE FILE TOTAL ENTRY SESSION FULL ESTIMATED COST 0.12 0.77

FILE 'REGISTRY' ENTERED AT 18:32:28 ON 20 DEC 2006 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT. PLEASE SEE "HELP USAGETERMS" FOR DETAILS. COPYRIGHT (C) 2006 American Chemical Society (ACS)

Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 19 DEC 2006 HIGHEST RN 916029-54-4 DICTIONARY FILE UPDATES: 19 DEC 2006 HIGHEST RN 916029-54-4

New CAS Information Use Policies, enter HELP USAGETERMS for details.

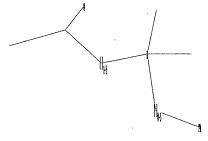
TSCA INFORMATION NOW CURRENT THROUGH June 30, 2006

Please note that search-term pricing does apply when conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

http://www.cas.org/ONLINE/UG/regprops.html

Uploading C:\Program Files\Stnexp\Queries\176xx.str



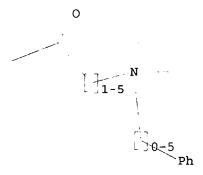
chain nodes:
1 2 3 4 5 6 7 8 9
chain bonds:
1-2 1-3 1-4 1-6 4-5 6-7 7-8 7-9
exact/norm bonds:
1-2 1-3 1-4 1-6 7-8

exact bonds : 4-5 6-7 7-9

Match level:
1:CLASS 2:CLASS 3:CLASS 4:CLASS 5:CLASS 6:CLASS 7:CLASS 8:CLASS 9:CLASS

L2 STRUCTURE UPLOADED

=> d 12 L2 HAS NO ANSWERS L2 STR



Structure attributes must be viewed using STN Express query preparation.

8 ANSWERS

=> s 12 sss sam
SAMPLE SEARCH INITIATED 18:32:47 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED - 11034 TO ITERATE

18.1% PROCESSED 2000 ITERATIONS INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)

SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**

BATCH **COMPLETE**

PROJECTED ITERATIONS: 214386 TO 226974
PROJECTED ANSWERS: 484 TO 1280

L3 8 SEA SSS SAM L2

=> d scan

L3 8 ANSWERS REGISTRY COPYRIGHT 2006 ACS on STN

IN Ammonium, benzyl[3-[p-[(2,4-dichlorophenyl)azo]phenoxy]-2-

hydroxypropyl]diethyl- (8CI)

MF C26 H30 Cl2 N3 O2

CI COM

C1

OH

$$CH_2 - Ph$$

O-
 $CH_2 - CH - CH_2 - N_+^+ Et$

Et

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):8

L3 8 ANSWERS REGISTRY COPYRIGHT 2006 ACS on STN

IN 2-Naphthalenepropanaminium, γ-hydroxy-N,N,γ-trimethyl-N-

(phenylmethyl) -, bromide, (γR) - (9CI)

MF C23 H28 N O . Br

Absolute stereochemistry.

● Br ੋ

L3

8 ANSWERS REGISTRY COPYRIGHT 2006 ACS on STN Benzenemethanaminium, N-[3-(2-cyclohexylphenoxy)-2-hydroxypropyl]-N-methyl-IN

N-(1-methylethyl)- (9CI)

MF C26 H38 N O2

REGISTRY COPYRIGHT 2006 ACS on STN L3

IN Benzenaminium, N-(2-hydroxytetradecyl)-N,N-dimethyl- (9CI)

MF C22 H40 N O

CI COM

$$\begin{array}{c|c} & \text{Ph} & \text{OH} \\ & | & | \\ \text{Me-N+} & \text{CH}_2\text{--} & \text{CH-} & \text{(CH}_2)_{11}\text{--} & \text{Me} \\ & | & \\ & \text{Me} & & \end{array}$$

L3 REGISTRY COPYRIGHT 2006 ACS on STN

Cellulose, 3-(dimethylphenylammonio)-2-hydroxypropyl ether (9CI) IN

MF C11 H18 N O2 . x Unspecified

CI COM

> CM 1

CM 2

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

L3 8 ANSWERS REGISTRY COPYRIGHT 2006 ACS on STN

IN 1,3-Propanediaminium, 2-hydroxy-N,N,N',N'-tetramethyl-N,N'-

bis(phenylmethyl)-, dichloride (9CI)

MF C21 H32 N2 O . 2 Cl

●2 Cl-

L3 8 ANSWERS REGISTRY COPYRIGHT 2006 ACS on STN

IN Benzenemethanaminium, N,N-diethyl-N-[2-[(2-methyl-1-oxo-2-

propenyl)oxy]propyl] - (9CI)

MF C18 H28 N O2

CI COM

$$\begin{array}{c|c} O & CH_2 \\ \parallel & \parallel \\ O - C - C - Me \\ & & CH_2 - Ph \\ Me - CH - CH_2 - N + Et \\ & & Et \end{array}$$

L3 8 ANSWERS REGISTRY COPYRIGHT 2006 ACS on STN

IN Poly(oxy-1,2-ethanediyl), α -(1-oxooctadecyl)- ω -[[10-

[[dimethyl(phenylmethyl)ammonio]methyl]trimethyl-3,6,9,12-tetraoxapentadec-

14-en-1-yl]oxy]-, chloride (9CI)

MF (C2 H4 O)n C42 H76 N O6 . Cl

CI IDS, PMS, COM

PAGE 1-A

PAGE 1-B

$$\begin{array}{c} \text{Me} \\ | \\ \text{CH}_2 - \text{N} \xrightarrow{+} \text{CH}_2 - \text{Ph} \\ | \\ | \\ \text{Me} \\ -- (\text{C}_3\text{H}_6) - \text{O} - \text{CH} - \text{CH}_2 - \text{O} - \text{CH}_2 - \text{CH} \longrightarrow \text{CH}_2 \\ \end{array}$$

ALL ANSWERS HAVE BEEN SCANNED

=> fil stng

COST IN U.S. DOLLARS

SINCE FILE TOTAL ENTRY SESSION 0.44 1.21

0.06

1.27

FULL ESTIMATED COST

FILE 'STNGUIDE' ENTERED AT 18:33:13 ON 20 DEC 2006 USE IS SUBJECT TO THE TERMS OF YOUR CUSTOMER AGREEMENT COPYRIGHT (C) 2006 AMERICAN CHEMICAL SOCIETY, JAPAN SCIENCE AND TECHNOLOGY CORPORATION, AND FACHINFORMATIONSZENTRUM KARLSRUHE

FILE CONTAINS CURRENT INFORMATION.

LAST RELOADED: Dec 19, 2006 (20061219/UP).

=> d his

(FILE 'HOME' ENTERED AT 18:30:53 ON 20 DEC 2006)

FILE 'REGISTRY' ENTERED AT 18:31:02 ON 20 DEC 2006
L1 STRUCTURE UPLOADED

FILE 'STNGUIDE' ENTERED AT 18:31:28 ON 20 DEC 2006

FILE 'REGISTRY' ENTERED AT 18:32:28 ON 20 DEC 2006 STRUCTURE UPLOADED

L3 8 S L2 SSS SAM

FILE 'STNGUIDE' ENTERED AT 18:33:13 ON 20 DEC 2006

=> fil req

L2

COST IN U.S. DOLLARS SINCE FILE TOTAL ENTRY SESSION

FULL ESTIMATED COST

FILE 'REGISTRY' ENTERED AT 18:33:32 ON 20 DEC 2006
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2006 American Chemical Society (ACS)

Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 19 DEC 2006 HIGHEST RN 916029-54-4 DICTIONARY FILE UPDATES: 19 DEC 2006 HIGHEST RN 916029-54-4

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH June 30, 2006

Please note that search-term pricing does apply when conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

http://www.cas.org/ONLINE/UG/regprops.html

=> s 12 sss full

FULL SEARCH INITIATED 18:33:43 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 221138 TO ITERATE

100.0% PROCESSED 221138 ITERATIONS

698 ANSWERS

SEARCH TIME: 00.00.01

L4 698 SEA SSS FUL L2

=> fil hcaplus

COST IN U.S. DOLLARS
SINCE FILE TOTAL
ENTRY SESSION
FULL ESTIMATED COST
166.94
168.21

FILE 'HCAPLUS' ENTERED AT 18:33:51 ON 20 DEC 2006 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT. PLEASE SEE "HELP USAGETERMS" FOR DETAILS. COPYRIGHT (C) 2006 AMERICAN CHEMICAL SOCIETY (ACS)

Copyright of the articles to which records in this database refer is held by the publishers listed in the PUBLISHER (PB) field (available for records published or updated in Chemical Abstracts after December 26, 1996), unless otherwise indicated in the original publications. The CA Lexicon is the copyrighted intellectual property of the the American Chemical Society and is provided to assist you in searching databases on STN. Any dissemination, distribution, copying, or storing of this information, without the prior written consent of CAS, is strictly prohibited.

FILE COVERS 1907 - 20 Dec 2006 VOL 145 ISS 26 FILE LAST UPDATED: 19 Dec 2006 (20061219/ED)

New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> s 14 L5

L5 267 L4

=> fil stnq

COST IN U.S. DOLLARS

SINCE FILE TOTAL ENTRY SESSION 2.53 170.74

FULL ESTIMATED COST

FILE 'STNGUIDE' ENTERED AT 18:33:58 ON 20 DEC 2006
USE IS SUBJECT TO THE TERMS OF YOUR CUSTOMER AGREEMENT
COPYRIGHT (C) 2006 AMERICAN CHEMICAL SOCIETY, JAPAN SCIENCE
AND TECHNOLOGY CORPORATION, AND FACHINFORMATIONSZENTRUM KARLSRUHE

FILE CONTAINS CURRENT INFORMATION.
LAST RELOADED: Dec 19, 2006 (20061219/UP).

=> fil reg
COST IN U.S. DOLLARS

SINCE FILE TOTAL ENTRY SESSION 0.24 170.98

FULL ESTIMATED COST

FILE 'REGISTRY' ENTERED AT 18:36:06 ON 20 DEC 2006
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2006 American Chemical Society (ACS)

Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 19 DEC 2006 HIGHEST RN 916029-54-4 DICTIONARY FILE UPDATES: 19 DEC 2006 HIGHEST RN 916029-54-4

New CAS Information Use Policies, enter HELP USAGETERMS for details.

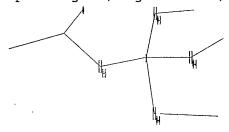
TSCA INFORMATION NOW CURRENT THROUGH June 30, 2006

Please note that search-term pricing does apply when conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

http://www.cas.org/ONLINE/UG/regprops.html

Uploading C:\Program Files\Stnexp\Queries\176xxi.str



chain nodes :

1 2 3 4 5 6 7 8 11 14 15

chain bonds :

1-2 1-3 1-4 1-5 2-14 3-15 4-11 5-6 6-7 6-8

exact/norm bonds :

1-2 1-3 1-4 1-5 6-7

exact bonds :

2-14 3-15 4-11 5-6 6-8

Match level :

1:CLASS 2:CLASS 3:CLASS 4:CLASS 5:CLASS 6:CLASS 7:CLASS 8:CLASS 11:CLASS 15:CLASS

L6 STRUCTURE UPLOADED

=> d 16 L6 HAS NO ANSWERS L6 STR 10/676,176>20/12/2006

Structure attributes must be viewed using STN Express query preparation.

19 ANSWERS

=> s 16 sss sam SAMPLE SEARCH INITIATED 18:36:28 FILE 'REGISTRY' SAMPLE SCREEN SEARCH COMPLETED -90887 TO ITERATE

2.2% PROCESSED 2000 ITERATIONS INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)

SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **INCOMPLETE**

BATCH **INCOMPLETE**

PROJECTED ITERATIONS: 1799837 TO 1835643 15506 TO 19030

PROJECTED ANSWERS:

19 SEA SSS SAM L6

=> d scan

L7

L7 19 ANSWERS REGISTRY COPYRIGHT 2006 ACS on STN

7H-Purine-7-propanaminium, 2-amino-β-hydroxy-N,N,N-trimethyl-6-

(phenylmethoxy) - (9CI)

C18 H25 N6 O2 MF

· COM CI

$$\begin{array}{c|c} & & & & \\ & & & & \\ & & & & \\ & & & \\ \text{Ph-} & \text{CH}_2\text{--} & \text{OH} \\ & & & \\ & & & \\ \text{CH}_2\text{--} & \text{CH--} & \text{CH}_2\text{--} & \text{N+Me}_3 \\ \end{array}$$

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):19

19 ANSWERS REGISTRY COPYRIGHT 2006 ACS on STN L7

1-Propanaminium, N-(2-hydroxyethyl)-N,N-dimethyl-2,3-

bis[(12,12,13,13,14,14,15,15,15-nonafluoropentadecyl)oxy]-, bromide (9CI)

MF C37 H60 F18 N O3 . Br

● Br

L7 19 ANSWERS REGISTRY COPYRIGHT 2006 ACS on STN

IN 1,3-Propanediaminium, 2-hydroxy-N,N,N,N',N'-pentamethyl-N'-[3-[(2-methyl-1-oxo-2-propenyl)amino]propyl]-, dichloride, polymer with

N,N-dimethyl-2-propenamide (9CI)
MF (C15 H33 N3 O2 . C5 H9 N O . 2 Cl)x

CI PMS

CM 1

●2 C1-

CM 2

$$\begin{array}{c} \circ \\ \parallel \\ \text{Me}_2 \text{N-C-CH----} \text{CH}_2 \end{array}$$

L7 19 ANSWERS REGISTRY COPYRIGHT 2006 ACS on STN

MF C50 H96 N O4 . Cl

Double bond geometry as shown.

PAGE 1-A

Me3+N O (CH₂) 7 Z (CH₂) 11 O (CH₂)
$$11$$
 Z

● cl -

PAGE 1-B

L7 19 ANSWERS REGISTRY COPYRIGHT 2006 ACS on STN

IN 1-Propanaminium, 2-chloro-2-hydroxy-N,N,N-trimethyl- (9CI)

MF C6 H15 Cl N O

CI COM

$$\begin{array}{c} \text{C1} \\ \mid \\ \text{Me-C-CH}_2\text{-N+Me}_3 \\ \mid \\ \text{OH} \end{array}$$

L7 19 ANSWERS REGISTRY COPYRIGHT 2006 ACS on STN

IN 2-Propenoic acid, homopolymer, 2-hydroxy-3-(trimethylammonio)propyl ester,

nitrate (salt) (9CI)

MF C6 H16 N O2 . x (C3 H4 O2)x . x N O3

CI COM

CM 1

CM 2

CM 3

10/676,176>20/12/2006

$$\begin{array}{c} \text{OH} \\ | \\ \text{HO- CH}_2\text{-- CH- CH}_2\text{-- N+Me}_3 \end{array}$$

CM 4

CM 5

L7 19 ANSWERS REGISTRY COPYRIGHT 2006 ACS on STN

IN 5-Hexen-2-yn-1-aminium, 4-hydroxy-N,N,N,4-tetramethyl-, iodide (9CI)

MF C10 H18 N O . I

$$\begin{array}{c} \text{Me} \\ | \\ \text{Me}_3 + \text{N} - \text{CH}_2 - \text{C} = \\ \text{C} - \text{C} - \text{CH} = \\ | \\ \text{OH} \end{array}$$

• I-

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L7 19 ANSWERS REGISTRY COPYRIGHT 2006 ACS on STN

IN 1-Butanaminium, N,N,N-triethyl-2,3-dimethyl-3-[[[5-methyl-4-(phenylmethyl)-4-(phenylmethyl)-3-[[[5-methyl-4-(phenylmethyl)-4-(phenylmethyl)-4-(phenylmethyl)-4-(phenylmethyl)-3-[[[5-methyl-4-(phenylmethyl)-4

2-furanyl]carbonyl]oxy]- (9CI)

MF C25 H38 N O3

CI COM

Me Me
$$C-O-C-CH-CH_2-N+Et_3$$
 Me Me Me

L7 19 ANSWERS REGISTRY COPYRIGHT 2006 ACS on STN

IN 1-Butanaminium, N,N,N-triethyl-3-[[3-methoxy-4-(1-

methylethoxy)benzoyl]oxy]-2-methyl- (9CI)

MF C22 H38 N O4

CI COM

10/676,176>20/12/2006

L7 19 ANSWERS REGISTRY COPYRIGHT 2006 ACS on STN

IN 1-Propanaminium, 2-[[[[7-[3,5-bis(trifluoromethyl)phenoxy]heptyl]oxy]hydro
xyphosphinyl]oxy]-3-carboxy-N,N,N-trimethyl-, inner salt, (R)- (9CI)

MF C22 H32 F6 N O7 P

Absolute stereochemistry.

L7 19 ANSWERS REGISTRY COPYRIGHT 2006 ACS on STN

IN Ammonium, (3-carboxy-2-hydroxypropyl)trimethyl-, tetrachloroaurate(1-),

isobutyrate, (S) - (8CI) C11 H22 N O4 . Au Cl4

CM 1

MF

Absolute stereochemistry.

CM 2

L7 19 ANSWERS REGISTRY COPYRIGHT 2006 ACS on STN
IN 1,3-Propanediaminium, N,N''-1,2-ethanediylbis[2-hydroxy-N,N,N',N'-

Roy P. Issac Page 16

tetramethyl-N'-tetradecyl- (9CI)

C44 H98 N4 O2 MF

CI COM

PAGE 1-B

-(CH₂)₁₃-Me

L7REGISTRY COPYRIGHT 2006 ACS on STN

IN 1-Propanaminium, N-ethyl-2-hydroxy-N, N-bis(2-hydroxyethyl)-3-[4-[(4methoxyphenyl)azo]phenoxy] - (9CI)

MF C22 H32 N3 O5

CI COM

REGISTRY COPYRIGHT 2006 ACS on STN

1-Dodecanaminium, N-[2-hydroxy-3-[(2-hydroxyethyl)]2-[(1-

oxododecyl)amino]ethyl]amino]propyl]-N,N-dimethyl-, chloride (9CI)

MF C33 H70 N3 O3 . Cl

Cl -

L7 REGISTRY COPYRIGHT 2006 ACS on STN

1-Dodecanaminium, N-hexyl-N-(2-hydroxyethyl)-N-(2-hydroxy-3-sulfopropyl)-,

hydroxide, monosodium salt (9CI)

MF C23 H50 N O5 S . H O . Na 10/676,176>20/12/2006

$$\begin{array}{c} \text{OH} \\ & \downarrow \\ \text{CH}_2\text{--}\text{CH}\text{--}\text{CH}_2\text{--}\text{SO}_3\text{H} \\ \text{Me}\text{--} \text{(CH}_2)_5\text{--}\text{N}\text{--} \text{(CH}_2)_{11}\text{--}\text{Me} \\ & \downarrow \\ \text{CH}_2\text{--}\text{CH}_2\text{--}\text{OH} \end{array}$$

Na

OH -

L7 REGISTRY COPYRIGHT 2006 ACS on STN 19 ANSWERS

IN 1-Butanaminium, N,N,N-trimethyl-4-oxo-2-[(1-oxoundecyl)oxy]-4-propoxy-, (R) - (9CI)

C21 H42 N O4 MF

CI COM

Absolute stereochemistry.

$$n-PrO$$
 R
 O
 $CH_2)$
 G
 Me

Ь7 19 ANSWERS REGISTRY COPYRIGHT 2006 ACS on STN

IN 1,3-Propanediaminium, N-(3-chloro-2-hydroxypropyl)-2-hydroxy-N,N,N',N'-

tetramethyl-N'-(oxiranylmethyl)-, dichloride (9CI)

MF C13 H29 Cl N2 O3 . 2 Cl

●2 Cl-

- L7 19 ANSWERS REGISTRY COPYRIGHT 2006 ACS on STN
- IN 1-Dodecanaminium, N-[2-hydroxy-3-[(2-methyl-1-oxo-2-propenyl)oxy]propyl]-N,N-dimethyl-, chloride, polymer with 2-ethylhexyl 2-propenoate and α -(2-methyl-1-oxo-2-propenyl)- ω -hydroxypoly(oxy-1,2ethanediyl) (9CI)

MF (C21 H42 N O3 . C11 H20 O2 . (C2 H4 O) n C4 H6 O2 . C1) x

CI

CM 1

● cl -

CM 2

$$\begin{array}{c|c} ^{H_2C} & \text{O} \\ \parallel & \parallel & \\ \text{Me-} & \text{C-} & \text{C-} & \text{C-} & \text{CH}_2 - \text{CH}_2 - \text{CH}_2 \\ \end{array} \right]_n \text{ OH}$$

CM 3

$$\begin{array}{c} \text{CH}_2-\text{O-C-CH} = \text{CH}_2 \\ \mid \\ \text{Et-CH-Bu-n} \end{array}$$

L7 19 ANSWERS REGISTRY COPYRIGHT 2006 ACS on STN
IN Ammonium, [3-(p-chlorophenyl)-3-hydroxy-5-hexenyl]trimethyl-, iodide (8CI)
MF C15 H23 Cl N O . I

$$\begin{array}{c} \text{OH} \\ | \\ \text{C-CH}_2\text{-CH} \\ | \\ \text{CH}_2\text{-CH}_2\text{-N+Me}_3 \end{array}$$

• I-

ALL ANSWERS HAVE BEEN SCANNED

=> fil stng

COST IN U.S. DOLLARS

SINCE FILE TOTAL ENTRY SESSION

FULL ESTIMATED COST 0.44 171.42

FILE 'STNGUIDE' ENTERED AT 18:36:44 ON 20 DEC 2006
USE IS SUBJECT TO THE TERMS OF YOUR CUSTOMER AGREEMENT
COPYRIGHT (C) 2006 AMERICAN CHEMICAL SOCIETY, JAPAN SCIENCE
AND TECHNOLOGY CORPORATION, AND FACHINFORMATIONSZENTRUM KARLSRUHE

FILE CONTAINS CURRENT INFORMATION.
LAST RELOADED: Dec 19, 2006 (20061219/UP).

=> d his

(FILE 'HOME' ENTERED AT 18:30:53 ON 20 DEC 2006)

FILE 'REGISTRY' ENTERED AT 18:31:02 ON 20 DEC 2006 L1 STRUCTURE UPLOADED

FILE 'STNGUIDE' ENTERED AT 18:31:28 ON 20 DEC 2006

FILE 'REGISTRY' ENTERED AT 18:32:28 ON 20 DEC 2006 L2 STRUCTURE UPLOADED

L3 8 S L2 SSS SAM

FILE 'STNGUIDE' ENTERED AT 18:33:13 ON 20 DEC 2006

FILE 'REGISTRY' ENTERED AT 18:33:32 ON 20 DEC 2006 L4 698 S L2 SSS FULL

FILE 'HCAPLUS' ENTERED AT 18:33:51 ON 20 DEC 2006 L5 267 S L4

FILE 'STNGUIDE' ENTERED AT 18:33:58 ON 20 DEC 2006

FILE 'REGISTRY' ENTERED AT 18:36:06 ON 20 DEC 2006 L6 STRUCTURE UPLOADED

L7 19 S L6 SSS SAM

FILE 'STNGUIDE' ENTERED AT 18:36:44 ON 20 DEC 2006

=> fil hcaplus

COST IN U.S. DOLLARS SINCE FILE TOTAL ENTRY SESSION FULL ESTIMATED COST 0.06 171.48

FILE 'HCAPLUS' ENTERED AT 18:37:29 ON 20 DEC 2006
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2006 AMERICAN CHEMICAL SOCIETY (ACS)

Copyright of the articles to which records in this database refer is held by the publishers listed in the PUBLISHER (PB) field (available for records published or updated in Chemical Abstracts after December 26, 1996), unless otherwise indicated in the original publications. The CA Lexicon is the copyrighted intellectual property of the the American Chemical Society and is provided to assist you in searching databases on STN. Any dissemination, distribution, copying, or storing of this information, without the prior written consent of CAS, is strictly prohibited.

FILE COVERS 1907 - 20 Dec 2006 VOL 145 ISS 26 FILE LAST UPDATED: 19 Dec 2006 (20061219/ED)

New CAS Information Use Policies, enter HELP USAGETERMS for details.

Roy P. Issac Page 20

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> s 15 and saccharide

9765 SACCHARIDE 9623 SACCHARIDES 16344 SACCHARIDE

(SACCHARIDE OR SACCHARIDES)

L8 0 L5 AND SACCHARIDE

=> s polysaccharide

59680 POLYSACCHARIDE 75015 POLYSACCHARIDES

L9 94657 POLYSACCHARIDE

(POLYSACCHARIDE OR POLYSACCHARIDES)

=> s 15 and 19

5 L5 AND L9 L10

=> d l10 ibib abs hitstr

L10 ANSWER 1 OF 5 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2004:308572 HCAPLUS

DOCUMENT NUMBER:

140:340991

TITLE:

Cationised polysaccharide product,

preparation, and use for production of paper

INVENTOR(S):

Solhage, Fredrik; Nilsson, Per-Ola

PATENT ASSIGNEE(S):

SOURCE:

Akzo Nobel N.V., Neth.; Eka Chemicals AB PCT Int. Appl., 33 pp.

CODEN: PIXXD2

DOCUMENT TYPE:

Patent

L'ANGUAGE:

English

1

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION: ______

	PATENT NO.					KIND DATE			APPLICATION NO.									
	WO 2004031478						WO 2003-SE1523											
		W:	ΑE,	AG,	AL,	AM,	ΑT,	AU,	ΑZ,	BA,	BB,	BG,	BR,	BY,	BZ,	CA,	CH,	CN,
												EE,						
												KE,						
												MN,						
•												SE,						
								-	-		•	VN,					•	•
		RW:										TZ,					AZ,	BY,
												CH,						
												NL,			•			
												GW,						
	CA	2500	545	•	•	A1		2004	0415		CA 2	003-	2500	545	•	2	0031	001
	ΑU	2003	2651	98		A1		2004	0423	1	AU 2	003-	2651	98		2	0031	001
		2004						2004	0603	1	US 2	003-	6763	35		2	0031	001
							A1 20040715			US 2003-676176				20031001				
										EP 2003-799231								
												IT,						
												TR,						
	BR	2003															0031	
		1703										003-					0031	001
	JP	2006	50134	48		${f T}$		2006	0112		JP 2	004-	5413	77		2	0031	
PRIO		APP										002-4					0021	001
		•										002-4					0021	001
												003-					0031	
7 0	m).				7			-	-									

AB The cationized polysaccharide product comprises a polysaccharide having ≥1 first substituent having an aromatic

```
group and ≥1 s substituent having no aromatic group. The cationized
polysaccharide product comprises ≥1 polysaccharides
having \geq 1 first substituent having an aromatic group and \geq 1
polysaccharides having ≥1 s substituent having no aromatic
group. The method for the preparation of a cationized polysaccharide
product comprises reacting ≥1 polysaccharides with
≥1 aromatic agent and ≥1 nonarom. agent. The method for the
preparation of a cationized polysaccharide product comprises reacting
a first polysaccharide with ≥1 aromatic agent, reacting a
second polysaccharide with \geq 1 s nonarom. agent, and then
mixing the polysaccharides. The process for production of paper
from an aqueous suspension containing cellulosic fibers, and optionally fillers,
comprises adding to the suspension a cationized polysaccharide
product comprising a polysaccharide having (i) ≥1 first
substituent having an aromatic group, and (ii) ≥1 s substituent having
no aromatic group, forming and draining the suspension on a wire. The
process for production of paper from an aqueous suspension containing cellulosic
fibers, and optionally fillers, comprises adding to the suspension a
cationized polysaccharide product comprising (i) ≥1
polysaccharide having ≥1 first substituent having an aromatic
group and (ii) ≥1 polysaccharide having ≥1 s
substituent having no aromatic group, where either/or polysaccharides
according to (i) and (ii) are cationic and/or amphoteric, forming and
draining the suspension on a wire. The process for production of paper from
an aqueous suspension containing cellulosic fibers, and optionally fillers,
comprises sep. adding to the suspension (i) ≥1
polysaccharide having ≥1 first substituent having an aromatic
group; and (ii) ≥1 polysaccharide having ≥1 s
substituent having no aromatic group, where either/or polysaccharides
according to (i) and (ii) are cationic and/or amphoteric, forming and
draining the suspension on a wire.
679828-86-5 679828-88-7
RL: MOA (Modifier or additive use); USES (Uses)
   (cationic polysaccharide improved drainage/retention aid/dry
   strength additive for production of paper)
679828-86-5 HCAPLUS
Starch, 2-hydroxy-3-[dimethyl(phenylmethyl)ammonio]propyl
2-hydroxy-3-(trimethylammonio)propyl ether, chloride (9CI) (CA INDEX
NAME)
CM
    1
CRN
    679828-85-4
    C12 H20 N O2 . x C6 H16 N O2 . x Unspecified
    CM
          2
    CRN 156669-86-2
     CMF C12 H20 N O2
  Мe
           OH
  Me
```

Ph CH₂ - N + CH₂ - CH - CH₂ - OH

IT

RN

CN

CM 3

CRN 44814-66-6 CMF C6 H16 N O2

Roy P. Issac Page 22

$$\begin{array}{c} \text{OH} \\ | \\ \text{HO- CH}_2\text{-- CH- CH}_2\text{-- N+Me}_3 \end{array}$$

CM 4

CRN 9005-25-8 CMF Unspecified CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

RN 679828-88-7 HCAPLUS

CN Starch, 2-hydroxy-3-[dimethyl(phenylmethyl)ammonio]propyl 2-hydroxy-2-methylpropyl ether, chloride (9CI) (CA INDEX NAME)

CM 1

CRN 679828-87-6

CMF C12 H20 N O2 . x C4 H10 O2 . x Unspecified

CM 2

CRN 156669-86-2 CMF C12 H20 N O2

CM 3

CRN 9005-25-8 CMF Unspecified CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

2

CM 4

CRN 558-43-0 CMF C4 H10 O2

REFERENCE COUNT:

THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> d l10 ibib abs hitstr 2-8

L10 ANSWER 2 OF 5 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2002:123316 HCAPLUS

DOCUMENT NUMBER: 136:169237

TITLE: Manufacture of paper with improved drainage and retention by adding cationic and anionic polymers

having aromatic groups

INVENTOR(S): Froelich, Sten; Solhage, Fredrik; Lindgren, Erik;

Johansson-Vestin, Hans

PATENT ASSIGNEE(S): Akzo Nobel N.V., Neth.; Eka Chemicals AB

SOURCE: PCT Int. Appl., 22 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 6

PATENT INFORMATION:

```
DATE
                                KIND DATE
                                                       APPLICATION NO.
      PATENT NO.
      _____
                                         -----
                                                         -----
                                ----
                                A1 20020214 WO 2001-SE1701
                                                                                      20010802
      WO 2002012626
           W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
                CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT,
                 RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US,
                 UZ, VN, YU, ZA, ZW
           RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,
                 BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
      CA 2418424
                                 A1
                                          20020214 CA 2001-2418424
                                                                                     20010802
                                 Α5
                                          20020218
                                                         AU 2001-80361
                                                                                        20010802
      AU 2001080361
                                                                                       20010802
                                          20030514
                                                         EP 2001-958740
      EP 1309758
                                 A1
           R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
                 IE, SI, LT, LV, FI, RO, MK, CY, AL, TR
                                                                                       20010802
      BR 2001012906 A
                                          20030624 BR 2001-12906
      JP 2004506105 T 20040226 JP 2002-517897
NZ 523956 A 20040227 NZ 2001-523956
TR 200300157 T2 20041221 TR 2003-157
RU 2244776 C2 20050120 RU 2003-106414
ZA 2003001792 A 20040419 ZA 2003-1792
NO 2003000559 A 20030204 NO 2003-559
US 2004206467 A1 20041021 US 2004-842866
                                                                                       20010802
                                {f T}
                                                         JP 2002-517897
                                                                                       20010802
                                                                                       20010802
                                                                                       20010802
                                                                                       20030131
                                                         ZA 2003-1792
                                                                                       20030204
                                                         EP 2000-850135 A 20000807
EP 2000-850136 A 20000807
EP 2000-850137 A 20000807
EP 2000-850195 A 20000807
PRIORITY APPLN. INFO.:
                                                                               P
P
P
                                                                                       20000807
                                                         US 2000-223367P
                                                                                       20000807
                                                         US 2000-223368P
                                                                                       20000807
                                                         US 2000-223369P
                                                                                   P
                                                         US 2000-249365P
                                                                                   P 20001116
                                                                                   W 20010802
                                                         WO 2001-SE1701
                                                                                   A3 20010806
                                                         US 2001-923097
```

```
AB Process for manufacture of paper from an aqueous suspension containing cellulosic fibers, and optional fillers comprises sep. adding to the suspension a cationic organic polymer having ≥1 aromatic groups (e.g., cationic starch obtained from native potato starch with 3-chloro-2-hydroxypropyldimethylbenzylammonium chloride) and an anionic polymer having ≥1 aromatic groups (e.g., formaldehyde -naphthalenesulfonate anionic polycondensate), forming and draining the suspension on a wire.

IT 67304-25-0D, reaction products with starch
```

RL: TEM (Technical or engineered material use); USES (Uses)

(cationic; manufacture of paper with improved drainage and retention by adding cationic and anionic polymers having aromatic groups)

RN 67304-25-0 HCAPLUS

CN Benzenemethanaminium, N-(3-chloro-2-hydroxypropyl)-N,N-dimethyl-, chloride

Roy P. Issac Page 24

(9CI) (CA INDEX NAME)

● Cl-

REFERENCE COUNT:

THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 3 OF 5 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

1999:712265 HCAPLUS

DOCUMENT NUMBER:

131:338508

TITLE:

Manufacture of paper with improved drainage and retention and paper strength by using cationic or

amphoteric polysaccharides

INVENTOR(S):

Persson, Michael; Hallstrom, Hans; Carlen, Joakim

Akzo Nobel N. V., Neth.; Eka Chemicals AB

SOURCE:

PCT Int. Appl., 22 pp. CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT: 4

PATENT INFORMATION:

PATENT ASSIGNEE(S):

P						KIND DATE			APPLICATION NO.				DATE			
W							WO 1999-SE679									
	W:	AL,	AM,	AT,	AU,	AZ,	BA,	BB,	BG, B	R, BY	, CA,	CH,	CN,	CU,	CZ,	DE,
									GM, H							
		KG,	KP,	KR,	KZ,	LC,	LK,	LR,	LS, LT	r, LU	, LV,	MD,	MG,	MK,	MN,	MW,
٠.		MX,	NO,	NZ,	PL,	PT,	RO,	RU,	SD, SI	, SG	, si,	SK,	SL,	TJ,	TM,	TR,
		TT,	UΑ,	ŪĠ,	US,	UZ,	VN,	YU,	ZA, ZV	v .		•	•			•
	RW:								sz, u		, AT,	BE,	CH,	CY,	DE,	DK,
									LU, MO							
								•	NE, SI	•		•	•	•	•	•
E	9536	•			-				EP	•	•	67		1	9980	427
	R:	AT,	BE,	CH,	DE,	DK,	ES,	FR,	GB, GE	R, IT	, LI,	LU,	NL,	SE,	MC,	PT,
		IE,	SI,	LT,	LV,	FI,	RO	-	•				•			-
C	A 2329		•		A1	·	1999	1104	CA	1999	-2329	027		1	9990	426
C	A 2329	027														
Αĭ	J 9944	016			Α		1999	1116	AU	1999	-4401	6		1	99904	426
Α	J 7470	89			В2		2002	0509								
B	R 9909	947			Α		2000	1226	BR	1999	-9947			1	9990	426
E	1080	271			A1		2001	0307	EP	1999	-9270	17		1	9990	426
El	1080	271			В1		2003	0618								
	R:	ΑT,	BE,	CH,	DE,	DK,	ES,	FR,	GB, IT	r, LI	, NL,	SE,	PT,	FI		
· J	2002	5131	03		Т		2002	0508	JP	2000	-5461	03		1	9990	426
RU	J 2185	470			C1		2002	0720	RU	2000	-1296	70		1	9990	426
N	2 5076	05			Α		2003	0131	NZ	1999	-5076	05		1	9990	426
A:	r 2432	81			T		2003	0715	AT	1999	-9270	17		1	99904	426
NO	2000	0052	42		Α		2000	1227	NO	2000	-5242			2	0001	018
PRIORI	ry Api	LN.	INFO	. :					EP	1998	-8500	67	i	A 1	99804	427
	•								US	1998	-8325	3 P	1	P 1	99804	427
									WO	1999	-SE67	9	Ţ	<i>N</i> 1	99904	426

AB Process for the production of paper from a suspension containing cellulosic fibers, and optional fillers, comprises adding to the suspension a

draining and retention aid comprising a cationic or amphoteric polysaccharide having hydrophobic group (such as cationized starch obtained by quaternizing native potato starch with 3-chloro-2hydroxypropyldimethylbenzylzmmonium chloride), and forming and dewatering the suspension on a wire.

IT 67304-25-0DP, reaction products with starch

RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PREP (Preparation); USES (Uses)

(manufacture of paper with improved drainage and retention and paper strength by using cationic or amphoteric polysaccharides)

67304-25-0 HCAPLUS RN

Benzenemethanaminium, N-(3-chloro-2-hydroxypropyl)-N,N-dimethyl-, chloride CN (9CI) (CA INDEX NAME)

● c1 -

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 4 OF 5 HCAPLUS COPYRIGHT 2006 ACS on STN

1991:20635 HCAPLUS ACCESSION NUMBER:

DOCUMENT NUMBER: 114:20635

TITLE: Method of heparin removal from blood for analysis

Antal, Miroslav; Toman, Rudolf INVENTOR(S):

Czech. PATENT ASSIGNEE(S):

Czech., 5 pp. SOURCE: CODEN: CZXXA9

Patent

DOCUMENT TYPE: Slovak LANGUAGE:

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	CS 265772	B1	19891114	CS 1987-1442	
PRIO	RITY APPLN. INFO.:			CS 1987-1442	19870304
AB	volume parts blood containing tertiary mmol/g. After ≥1 m	with 5- or qua nin, the	150 weight p ternary amin solid phase	plasma for anal. by mi arts of an insol. polys es with an exchange cap with adsorbed heparin	saccharide pacity of 0.3-1.3 is
				lyzed. The method can	
				crocryst. cellulose may	also be used
	in addition to the				
				of cellulose or starch	and
	are added to the bl				
IT				hydroxypropyl cellulose	:
	120860-33-5, Benyld	limethyl	ammonium-2-h	ydroxypropyl starch	
	RL: ANST (Analytica	l study	·)		
	(heparin removal	from b	lood with)		
RN	120859-15-6 HCAPLU	IS			
CN	Cellulose, 3-[dimet	hyl (phe	nylmethyl) am	monio]-2-hydroxypropyl	ether (9CI)

(CA INDEX NAME)

CM 1 CRN 156669-86-2 CMF C12 H20 N O2

CM 2

CRN 9004-34-6 CMF Unspecified CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

RN 120860-33-5 HCAPLUS

CN Starch, 3-[dimethyl(phenylmethyl)ammonio]-2-hydroxypropyl ether (9CI) (CA INDEX NAME)

CM 1

CRN 156669-86-2 CMF C12 H20 N O2

CM 2

CRN 9005-25-8 CMF Unspecified CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

L10 ANSWER 5 OF 5 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

1987:89942 HCAPLUS

DOCUMENT NUMBER:

106:89942

TITLE:

Hydrophobe substituted, water-soluble cationic

polysaccharides

INVENTOR(S):

Brode, George Lewis; Kreeger, Russel Lowell; Goddard,

Errol Desmond; Merritt, Frederick Maynard; Braun,

David Bernard

PATENT ASSIGNEE(S):

Union Carbide Corp., USA

SOURCE: Eur. Pat. Appl., 74 pp.

CODEN: EPXXDW

DOCUMENT TYPE:

Patent

LANGUAGE:

English 1

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO. KIND DATE APPLICATION NO. DATE

	189935 189935			A2 A3	19860806 19870916	EP	1986-101287		19860131
	R: AT,	BE,	CH,	DE,	FR, GB, IT,	LI, L	J, NL, SE		
US	4663159			Α	19870505	US	1985-697241		19850201
CA	1277314			C	19901204	CA	1986-500201		19860123
AU	8652870			Α	19860807	AU	1986-52870		19860130
AU	594935			B2	19900322				
JP	61181801			Α	19860814	JP	1986-18298		19860131
JP	03077201			В	19911209				
US	4663159			В1	19921201	US	1990-90002084		19900706
PRIORIT	Y APPLN.	INFO.	. :			US	1985-697241	Α	19850201

Water-soluble cationic quaternary ammonium-containing cellulose ethers, containing hydrophobic substituents, provide aqueous solns. having enhanced viscosity, foaming and improved surface properties, and are used in personal care products, emulsions and cleansers. Starting materials such as hydroxyethyl cellulose are reacted with quaternizing agents such as ClCH2CH(OH)CH2N+Me2Cl, alkylated to provide hydrophobic substituents with, e.g., 3-chloro-2-hydroxypropyldimethyldodecylammonium chloride, and etherified (if not already obtained com. as ethers) with agents such as ethylene oxide. Properties such as foaming, surface pressure viscosity, and solubility are given for the products. Hair treatment and hand lotion compns. were also evaluated.

IT 67304-25-0

RL: BIOL (Biological study)
 (alkylating agent)

RN 67304-25-0 HCAPLUS

CN Benzenemethanaminium, N-(3-chloro-2-hydroxypropyl)-N,N-dimethyl-, chloride (9CI) (CA INDEX NAME)

● Cl -

=> fil stng COST IN U.S. DOLLARS SINCE FILE TOTAL ENTRY SESSION 202.09 FULL ESTIMATED COST 30.61 DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS) SINCE FILE TOTAL ENTRY SESSION CA SUBSCRIBER PRICE -3.75 -3.75

FILE 'STNGUIDE' ENTERED AT 18:38:44 ON 20 DEC 2006
USE IS SUBJECT TO THE TERMS OF YOUR CUSTOMER AGREEMENT
COPYRIGHT (C) 2006 AMERICAN CHEMICAL SOCIETY, JAPAN SCIENCE
AND TECHNOLOGY CORPORATION, AND FACHINFORMATIONSZENTRUM KARLSRUHE

FILE CONTAINS CURRENT INFORMATION.
LAST RELOADED: Dec 19, 2006 (20061219/UP).

=> d his

(FILE 'HOME' ENTERED AT 18:30:53 ON 20 DEC 2006)

L2

1.6

L8

FILE 'REGISTRY' ENTERED AT 18:31:02 ON 20 DEC 2006 L1 STRUCTURE UPLOADED

FILE 'STNGUIDE' ENTERED AT 18:31:28 ON 20 DEC 2006

FILE 'REGISTRY' ENTERED AT 18:32:28 ON 20 DEC 2006

STRUCTURE UPLOADED

L3 8 S L2 SSS SAM

FILE 'STNGUIDE' ENTERED AT 18:33:13 ON 20 DEC 2006

FILE 'REGISTRY' ENTERED AT 18:33:32 ON 20 DEC 2006

L4 698 S L2 SSS FULL

FILE 'HCAPLUS' ENTERED AT 18:33:51 ON 20 DEC 2006

L5 267 S L4

FILE 'STNGUIDE' ENTERED AT 18:33:58 ON 20 DEC 2006

FILE 'REGISTRY' ENTERED AT 18:36:06 ON 20 DEC 2006

STRUCTURE UPLOADED

L7 19 S L6 SSS SAM

FILE 'STNGUIDE' ENTERED AT 18:36:44 ON 20 DEC 2006

FILE 'HCAPLUS' ENTERED AT 18:37:29 ON 20 DEC 2006

0 S L5 AND SACCHARIDE

L9 94657 S POLYSACCHARIDE

L10 5 S L5 AND L9

FILE 'STNGUIDE' ENTERED AT 18:38:44 ON 20 DEC 2006

=> fil reg

COST IN U.S. DOLLARS
SINCE FILE TOTAL
ENTRY SESSION
FULL ESTIMATED COST
0.12 202.21

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)
SINCE FILE TOTAL ENTRY SESSION

CA SUBSCRIBER PRICE 0.00 -3.75

FILE 'REGISTRY' ENTERED AT 18:40:02 ON 20 DEC 2006
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2006 American Chemical Society (ACS)

Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 19 DEC 2006 HIGHEST RN 916029-54-4 DICTIONARY FILE UPDATES: 19 DEC 2006 HIGHEST RN 916029-54-4

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH June 30, 2006

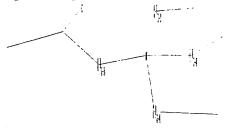
Please note that search-term pricing does apply when conducting SmartSELECT searches.

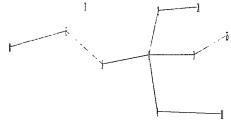
REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

http://www.cas.org/ONLINE/UG/regprops.html

=>

Uploading C:\Program Files\Stnexp\Queries\176xxi.str





chain nodes :

1 2 3 4 5 6 7 8 11 14 15

chain bonds :

1-2 1-3 1-4 1-5 2-14 3-15 4-11 5-6 6-7 6-8

exact/norm bonds :

1-2 1-3 1-4 1-5 6-7

exact bonds :

2-14 3-15 4-11 5-6 6-8

Match level :

1:CLASS 2:CLASS 3:CLASS 4:CLASS 5:CLASS 6:CLASS 7:CLASS 8:CLASS 11:CLASS 14:CLASS

15:CLASS

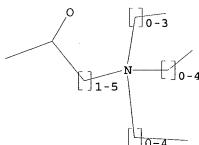
L11 STRUCTURE UPLOADED

=> d 111

L11 HAS NO ANSWERS

L11

STR



Structure attributes must be viewed using STN Express query preparation.

=> s 111 sss sam

SAMPLE SEARCH INITIATED 18:40:23 FILE 'REGISTRY'

SAMPLE SCREEN SEARCH COMPLETED - 90887 TO ITERATE

2.2% PROCESSED 2000 ITERATIONS

INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)

SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **INCOMPLETE**

BATCH **INCOMPLETE**

PROJECTED ITERATIONS: 1799837 TO 1835643

PROJECTED ANSWERS: 15506 TO 19030

Roy P. Issac

Page 30

19 ANSWERS

L12 19 SEA SSS SAM L11

=> s 111 sss full FULL SEARCH INITIATED 18:40:30 FILE 'REGISTRY' FULL SCREEN SEARCH COMPLETED - 1809382 TO ITERATE

55.3% PROCESSED 1000000 ITERATIONS INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED) SEARCH TIME: 00.00.08

8234 ANSWERS

SEARCH TIME: 00.00.08

FULL FILE PROJECTIONS: ONLINE **INCOMPLETE**
BATCH **INCOMPLETE**

PROJECTED ITERATIONS: 1809382 TO 1809382 PROJECTED ANSWERS: 14532 TO 15264

L13 8234 SEA SSS FUL L11

=> fil hcaplus

COST IN U.S. DOLLARS SINCE FILE TOTAL ENTRY SESSION FULL ESTIMATED COST 166.94 369.15

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)
SINCE FILE TOTAL
ENTRY SESSION
CA SUBSCRIBER PRICE
0.00 -3.75

FILE 'HCAPLUS' ENTERED AT 18:40:44 ON 20 DEC 2006 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT. PLEASE SEE "HELP USAGETERMS" FOR DETAILS. COPYRIGHT (C) 2006 AMERICAN CHEMICAL SOCIETY (ACS)

Copyright of the articles to which records in this database refer is held by the publishers listed in the PUBLISHER (PB) field (available for records published or updated in Chemical Abstracts after December 26, 1996), unless otherwise indicated in the original publications. The CA Lexicon is the copyrighted intellectual property of the the American Chemical Society and is provided to assist you in searching databases on STN. Any dissemination, distribution, copying, or storing of this information, without the prior written consent of CAS, is strictly prohibited.

FILE COVERS 1907 - 20 Dec 2006 VOL 145 ISS 26 FILE LAST UPDATED: 19 Dec 2006 (20061219/ED)

New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> s 113

L14 1602 L13

=> d his

(FILE 'HOME' ENTERED AT 18:30:53 ON 20 DEC 2006)

FILE 'REGISTRY' ENTERED AT 18:31:02 ON 20 DEC 2006 L1 STRUCTURE UPLOADED

FILE 'STNGUIDE' ENTERED AT 18:31:28 ON 20 DEC 2006

FILE 'REGISTRY' ENTERED AT 18:32:28 ON 20 DEC 2006

L2

STRUCTURE UPLOADED

```
8 S L2 SSS SAM
L3
     FILE 'STNGUIDE' ENTERED AT 18:33:13 ON 20 DEC 2006
     FILE 'REGISTRY' ENTERED AT 18:33:32 ON 20 DEC 2006
           698 S L2 SSS FULL
L4
     FILE 'HCAPLUS' ENTERED AT 18:33:51 ON 20 DEC 2006
L5
           267 S L4
     FILE 'STNGUIDE' ENTERED AT 18:33:58 ON 20 DEC 2006
     FILE 'REGISTRY' ENTERED AT 18:36:06 ON 20 DEC 2006
L6
               STRUCTURE UPLOADED
             19 S L6 SSS SAM
L7
     FILE 'STNGUIDE' ENTERED AT 18:36:44 ON 20 DEC 2006
     FILE 'HCAPLUS' ENTERED AT 18:37:29 ON 20 DEC 2006
L8
             0 S L5 AND SACCHARIDE
Ь9
          94657 S POLYSACCHARIDE
              5 S L5 AND L9
L10
     FILE 'STNGUIDE' ENTERED AT 18:38:44 ON 20 DEC 2006
     FILE 'REGISTRY' ENTERED AT 18:40:02 ON 20 DEC 2006
               STRUCTURE UPLOADED
L11
L12
             19 S L11 SSS SAM
L13
          8234 S L11 SSS FULL
     FILE 'HCAPLUS' ENTERED AT 18:40:44 ON 20 DEC 2006
          1602 S L13
L14
=> s 114 and 19
           53 L14 AND L9
=> d l15 ibib abs hitstr
L15 ANSWER 1 OF 53 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER:
                        2006:485572 HCAPLUS
DOCUMENT NUMBER:
                        144:490667
TITLE:
                        Cationically modified galactomannan-containing
                        polysaccharides and cosmetic compositions
                        containing them
                        Takeda, Hiromitsu; Mori, Yoshihiko
INVENTOR(S):
PATENT ASSIGNEE(S):
                        Toho Chemical Industry Co., Ltd., Japan
                        Jpn. Kokai Tokkyo Koho, 35 pp.
SOURCE:
                        CODEN: JKXXAF
DOCUMENT TYPE:
                        Patent
LANGUAGE:
                        Japanese
FAMILY ACC. NUM. COUNT:
PATENT INFORMATION:
                        KIND DATE
                                         APPLICATION NO.
     PATENT NO.
                                                                DATE
     -----
                               -----
                        ----
                                           -----
                                                                 _____
                        Α
                                           JP 2004-368566
    JP 2006131862
                               20060525
                                                                 20041220
PRIORITY APPLN. INFO.:
                                           JP 2004-293088
                                                              A 20041005
    The polysaccharides are manufactured by purifying the crude
     polysaccharides derived from fenugreek seed endosperm of legume
     family and having galactomannan content ≥85%, with mannose units
     (M) on main chain and galactose units (G) side chain at a M/G ratio of
     1:1, then cationizing the polysaccharides using specific
     quaternary ammonium group-introducing compds. The cationic derivs. are
```

useful for hair and body care products such as shampoos and rinse compns. with good conditioning property, feel and softness. Thus, cationizing a fenugreek gum (88% galactomannan content) with glycidyltrimethylammonium chloride gave a cationic product.

IT 742071-26-7

RL: RCT (Reactant); RACT (Reactant or reagent)...

(manufacture of cationically modified galactomannan-containing

polysaccharides and cosmetic compns. containing them)

RN 742071-26-7 HCAPLUS

CN Fenugreek gum, 2-hydroxy-3-(trimethylammonio)propyl ether, chloride (9CI) (CA INDEX NAME)

CM 1

CRN 742071-25-6

CMF C6 H16 N O2 . x Unspecified

CM 2

CRN 73613-05-5 CMF Unspecified

CCI MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 3

CRN 44814-66-6 CMF C6 H16 N O2

 $\begin{array}{c} \text{OH} \\ | \\ \text{HO- CH}_2\text{-- CH-- CH}_2\text{-- N+Me}_3 \end{array}$

=> S L15 AND 1800<=PY<=2002 22829998 1800<=PY<=2002

L16 20 L15 AND 1800<=PY<=2002

=> d l15 ibib abs hitstr 1-20

L15 ANSWER 1 OF 53 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2006:485572 HCAPLUS

DOCUMENT NUMBER: 144:490667

TITLE: Cationically modified galactomannan-containing

polysaccharides and cosmetic compositions

containing them

INVENTOR(S): Takeda, Hiromitsu; Mori, Yoshihiko

PATENT ASSIGNEE(S): Toho Chemical Industry Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 35 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2006131862	Α	20060525	JP 2004-368566	20041220
PRIORITY APPLN. INFO.:			JP 2004-293088 A	20041005

AB The polysaccharides are manufactured by purifying the crude

polysaccharides derived from fenugreek seed endosperm of legume family and having galactomannan content ≥85%, with mannose units (M) on main chain and galactose units (G) side chain at a M/G ratio of 1:1, then cationizing the polysaccharides using specific quaternary ammonium group-introducing compds. The cationic derivs. are useful for hair and body care products such as shampoos and rinse compns. with good conditioning property, feel and softness. Thus, cationizing a fenugreek qum (88% galactomannan content) with glycidyltrimethylammonium chloride gave a cationic product.

IT 742071-26-7

> RL: RCT (Reactant); RACT (Reactant or reagent) (manufacture of cationically modified galactomannan-containing polysaccharides and cosmetic compns. containing them)

RN742071-26-7 HCAPLUS

CNFenugreek qum, 2-hydroxy-3-(trimethylammonio)propyl ether, chloride (9CI) (CA INDEX NAME)

CM

742071-25-6 C6 H16 N O2 . x Unspecified

CM

73613-05-5 CRN CMF Unspecified CCI MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM

44814-66-6 CRN CMF C6 H16 N O2

OH $HO-CH_2-CH-CH_2-N+Me_3$

L15 ANSWER 2 OF 53 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

2006:436951 HCAPLUS

DOCUMENT NUMBER:

144:433765

TITLE:

Polysaccharide derivatives, their

manufacture, their uses as thickeners and emulsifiers,

and water-thinned compositions containing them

INVENTOR (S):

Ihara, Takeshi; Nishioka, Toru

PATENT ASSIGNEE(S):

Kao Corp., Japan

SOURCE:

Jpn. Kokai Tokkyo Koho, 21 pp.

CODEN: JKXXAF

DOCUMENT TYPE:

Patent

LANGUAGE:

Japanese

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2006117746	Α	20060511	JP 2004-305312	20041020
PRIORITY APPLN. INFO.:			JP 2004-305312	20041020

The invention relates to polysaccharide derivs. having H of OH AB at least partially substituted with E1(OA)nE2R [(A); E1 = OH- or oxo group-(un) substituted C1-6 linear or branched saturated hydrocarbylene; n =

5-30; A = C1-6 linear or branched saturated hydrocarbylene; E2 = ether bond, OCO, CO2; R = steroid structure-having hydrocarbyl; H of OH of (A) may be further substituted with (A)]. Thus, an water-thinned dispersion containing 0.5% hydroxyethyl cellulose (Natrozol 250G) substituted with an ethylene oxide-terminated polyoxyethylene cholesteryl ether and 7.5% silicone oil (SH 200) was stored at 40° for 1 mo to show high emulsion stability. A shampoo containing the ethoxylated cellulose showed good formability and detergency.

IT 888701-07-3P

RL: COS (Cosmetic use); IMF (Industrial manufacture); MOA (Modifier or additive use); TEM (Technical or engineered material use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(ethoxylated cholesteryl cellulose for thickeners, emulsifiers, shampoos, soaps, fabric softeners, and detergents)

RN 888701-07-3 HCAPLUS

Cellulose, 2-hydroxyethyl ether, polymer with oxirane, (3β) -cholest-5-en-3-yl 2-hydroxy-3-(trimethylammonio)propyl ether, chloride (9CI) (CA INDEX NAME)

CM 1

CN

CRN 888701-06-2 CMF C27 H46 O . x C6 H16 N O2 . x (C2 H6 O2 . C2 H4 O . x Unspecified)x

CM 2

CRN 44814-66-6 CMF C6 H16 N O2

$$^{\mathrm{OH}}$$
 $^{|}$ $^{|}$ HO- CH₂- CH- CH₂- N+Me₃

CM 3

CRN 57-88-5 CMF C27 H46 O

Absolute stereochemistry.

CM 4

CRN 149829-07-2

CMF (C2 H6 O2 . C2 H4 O . x Unspecified)x

CCI PMS

CM 5

CRN 75-21-8 CMF C2 H4 O

,0

CM 6

CRN 9004-62-0

CMF C2 H6 O2 . x Unspecified

CM 7

CRN 9004-34-6 CMF Unspecified CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 8

CRN 107-21-1 CMF C2 H6 O2

 $HO-CH_2-CH_2-OH$

L15 ANSWER 3 OF 53 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

2006:405420 HCAPLUS

DOCUMENT NUMBER:

145:187108

TITLE:

Highly efficient immobilization of

endo-1,3-β-D-glucanases (laminarinases) from marine mollusks in novel hybrid polysaccharide -silica nanocomposites with regulated composition Shchipunov, Yu. A.; Burtseva, Yu. V.; Karpenko, T.

AUTHOR(S):

Yu.; Shevchenko, N. M.; Zvyagintseva, T. N.

CORPORATE SOURCE:

Institute of Chemistry, Far East Department, Russian

Academy of Sciences, Vladivostok, 690022, Russia Journal of Molecular Catalysis B: Enzymatic (2006),

40(1-2), 16-23

CODEN: JMCEF8; ISSN: 1381-1177

PUBLISHER:

SOURCE:

Elsevier B.V.

DOCUMENT TYPE:

Journal

LANGUAGE:

English

AB A novel immobilizing method developed previously by ourselves was successfully used to entrap endo-1,3- β -D-glucanases (laminarinases) separated from marine bivalvia Spisula sacchalinensis (glucanase LIV) and Chlamys albidus (glucanase Lo) into hybrid polysaccharide-silica nanocomposite materials by means of the sol-gel processing. Its main advantage over the current immobilizing procedures is that the entrapment conditions are dictated by the enzymes, but not the processing. It was shown that both the 1,3- β -D-glucanases retained or even had sometimes an increased activity after the immobilization. At the same time, their characteristics (optimal pH, temperature and ionic strength) noticeably were not changed. They provided a depth of hydrolysis of laminaran comparable with that caused by free enzymes in solns. Furthermore, glucanase Lo retained its glucanosyl transferase activity, affording an enzymic synthesis of biol. active 1,3;1,6- β -D-glucan, called translam, from the initially

inactive laminaran. It was also demonstrated that the laminarinase entrapment into the hybrid nanocomposites led to a prominent increase of thermal and long-term stability that was particular striking in a case of such a labile enzyme as the glucanase Lo. By varying the nanomaterial composition, its influence on the glucanase activity was found that differed for the studied enzymes.

IT 902451-55-2P

RL: BUU (Biological use, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)

(highly efficient immobilization of endo-1,3- β -D-glucanases (laminarinases) from marine mollusks in novel hybrid

polysaccharide-silica nanocomposites with regulated composition)

RN 902451-55-2 HCAPLUS

CN Cellulose, 2-hydroxy-3-(trimethylammonio)propyl ether, chloride, polymer with silicic acid (H4SiO4) tetrakis(2-hydroxyethyl) ester (9CI) (CA INDEX NAME)

CM 1

CRN 17622-94-5 CMF C8 H20 O8 Si

$$\begin{array}{c} \text{O-CH}_2\text{--CH}_2\text{--OH} \\ | \\ \text{HO-CH}_2\text{--CH}_2\text{--OH} \\ | \\ \text{O-CH}_2\text{--CH}_2\text{--OH} \end{array}$$

CM 2

CRN 52350-16-0 CMF C6 H16 N O2 . x Cl . x Unspecified

CM 3

CRN 60650-44-4 CMF C6 H16 N O2 . x Unspecified

CM 4

CRN 44814-66-6 CMF C6 H16 N O2

$$\begin{array}{c} \text{OH} \\ | \\ \text{HO-CH}_2\text{-CH-CH}_2\text{-N+Me}_3 \end{array}$$

CM 5

CRN 9004-34-6 CMF Unspecified CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

REFERENCE COUNT:

38 THERE ARE 38 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L15 ANSWER 4 OF 53 HCAPLUS COPYRIGHT 2006 ACS on STN

2006:339415 HCAPLUS ACCESSION NUMBER:

DOCUMENT NUMBER: 144:376045

Soybean polysaccharides having quaternary TITLE:

ammonium groups and cosmetics containing them

Yoshijima, Hiroshi INVENTOR(S):

PATENT ASSIGNEE(S): Toho Chemical Industry Co., Ltd., Japan

Jpn. Kokai Tokkyo Koho, 42 pp. SOURCE:

CODEN: JKXXAF

DOCUMENT TYPE: Patent Japanese LANGUAGE:

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2006097010	Α	20060413	JP 2005-252741	20050831
PRIORITY APPLN. INFO.:			JP 2004-253490 A	20040831

AB The polysaccharides are characterized by substituting a part of the OH groups with O(R40)nCH2CH(OH)CH2N+R1R2R3 X-[R1, R2 = C1-3 alkyl; R3]= C1-24 alkyl, alkenyl; X- = anion; n = 0-30; when n = 1-30, then (R40)n = residue of poly(C2-4 alkylene oxide)] and showing amount of charges derived from the quaternary ammonium cation-containing groups 0.1-3.0 meg/g. Also claimed are cosmetics, es. hair prepns., containing the cationic soybean polysaccharides,. The hair prepns. show good adhesion to hair and skin, conditioning effect, salt resistance, and heatless hair-setting property. Thus, Soyafibe S-RA 100 (soybean polysaccharide), dispersed ub a mixture of an aqueous NaOH solution, NaCl, and Me2CHOH, was treated with glycidyltrimethylammonium chloride at 50° for 3 h to give cationic polysaccharides with amount of cationic charge 0.73 meq/g. Hair treated with a shampoo containing the cationic soybean polysaccharide had improved softness.

IT217327-30-5DP, 3-halo derivs., reaction products with soybean polysaccharides

RL: COS (Cosmetic use); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of soybean polysaccharides having quaternary ammonium groups and cosmetics containing them with good conditioning effect, hair-setting property, salt resistance, etc.)

217327-30-5 HCAPLUS RN

1-Dodecanaminium, N-(2-hydroxypropyl)-N,N-dimethyl-, chloride (9CI) CN INDEX NAME)

OH Me | Me | CH-
$$CH_2 - N_1^+$$
 (CH_2) $11 - Me$ Me Me

● Cl -

L15 ANSWER 5 OF 53 HCAPLUS COPYRIGHT 2006 ACS on STN

2006:317086 HCAPLUS ACCESSION NUMBER:

DOCUMENT NUMBER: 144:376058

TITLE: High ds cationic polygalactomannan for skin care

products

INVENTOR (S): Modi, Jashawant, J.

PATENT ASSIGNEE(S): Hercules Incorporated, USA SOURCE: PCT Int. Appl., 66 pp.

CODEN: PIXXD2

DOCUMENT TYPE:

Patent English

LANGUAGE:

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

	PATENT NO.	KIND DATE	APPLICATION NO.	DATE	
	WO 2006036510		WO 2005-US32209	20050909	
	W: AE, AG, AL,	AM, AT, AU, AZ,	BA, BB, BG, BR, BW, B	Y, BZ, CA, CH,	
	CN, CO, CR,	CU, CZ, DE, DK,	DM, DZ, EC, EE, EG, E	S, FI, GB, GD,	
			IN, IS, JP, KE, KG, F		
			MA, MD, MG, MK, MN, M		
			PL, PT, RO, RU, SC, S		
		TJ, TM, TN, TR,	TT, TZ, UA, UG, US, U	Z, VC, VN, YU,	
	ZA, ZM, ZW				
			DK, EE, ES, FI, FR, G		
			PL, PT, RO, SE, SI, S		
			GW, ML, MR, NE, SN, T		
			SL, SZ, TZ, UG, ZM, Z	W, AM, AZ, BY,	
		RU, TJ, TM			
DDTC		A1 20060406	US 2005-223525		
AB	RITY APPLN. INFO.:		US 2004-613007P		/1- \
AB			with (a) about 1-90% polymer wherein the ca		, (D)
			about 2000-10,000 Dal		
			bstitution (DS) greate		
			ve ingredient, wherein		'
			f the functions of cle		ion
			, occlusive barrier, e		1011,
			kin. A hand and body		a
			.25, glycerin 2.00, gl		u
	2.75 stearic acid	2 50 mineral oi	l 2.00, acetylated lan	olin 0 50 cety	٦.
			opylene glycol and dia		-
	and Me paraben and			zorianiji arca	
IT	622850-21-9	rr parabon 0.757	and water 500.		
		se): BTOL (Biolo	gical study); USES (Us	es)	
			nan for skin care prod		
RN	622850-21-9 HCAPLU		 pro	<i></i> ,	
CN	1-Propanaminium, 3-	chloro-N-ethyl-2	-hydroxy-N,N-dimethyl-	, chloride (9CI)
	(CA INDEX NAME)	•		, , , , , , , , , , , , , , , , , , , ,	•

$$\begin{array}{c|c} \text{OH} & \text{Me} \\ \mid & \mid \\ \text{C1CH}_2 - \text{CH} - \text{CH}_2 - \text{N} \stackrel{+}{\longrightarrow} \text{Et} \\ \mid & \mid \\ \text{Me} \end{array}$$

REFERENCE COUNT:

7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L15 ANSWER 6 OF 53 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

2006:194008 HCAPLUS

DOCUMENT NUMBER:

144:280046

TITLE:

Reduced odor in low molecular weight cationic

polygalactomannan

INVENTOR(S):

Bejger, Thomas P.; Erazo-Majewicz, Paquita; Hopkins, Daniel L.; Kostas, John N.; Kuo, Pong-Kuen P.; Modi,

Jashawant J.; Xu, Zu-Feng

PATENT ASSIGNEE(S):

USA

SOURCE:

U.S. Pat. Appl. Publ., 16 pp.

CODEN: USXXCO

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

```
PATENT NO.
                         KIND
                                DATE
                                            APPLICATION NO.
                         - - - -
     US 2006045861
                         A1
                                            US 2005-202469
                                20060302
     WO 2006026113
                         A1
                                20060309
                                            WO 2005-US28608
            AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,
             CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,
             GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ,
             LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA,
             NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK,
             SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU,
             ZA, ZM, ZW
         RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,
             IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ,
             CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH,
             GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,
             KG, KZ, MD, RU, TJ, TM
     US 2006046943
                          A1
                                20060302
                                            US 2005-211001
     WO 2006026750
                                20060309
                                            WO 2005-US31291
                          Α1
                                                                   20050830
            AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,
             CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,
             GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ,
             LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA,
             NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK,
             SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU,
             ZA, ZM, ZW
         RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,
             IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ,
             CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH,
             GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,
             KG, KZ, MD, RU, TJ, TM
PRIORITY APPLN. INFO.:
                                            US 2004-605556P
                                                                P 20040831
     A reduced odor composition is composed of at least one cationic
     polygalactomannan or a derivative of cationic polygalactomannan having a weight
     average mol. weight (Mw) having a lower limit of 5,000 and an upper limit of
     200,000, a light transmittance in a 10% aqueous solution of greater than 80% at a
     light wavelength of 600 nm, a protein content of less than 1.0% by weight of
     polysaccharide, and a trimethylamine content of less than 25 ppm
     in a 10% aqueous solution of the polymer. This composition is prepared by treating the
     polymer with reagents that reduce the mol. weight of the polymer, removing
     the water-insol. solid material, and removing odorous components,
     including trimethylamine (TMA) and other amines and low mol. weight
     components from the aqueous phase to produce a polymer that when used in a
    functional system such as household care, personal care or pet care.
    products has reduced or no odor at acidic, neutral, or alkaline pH values.
     622850-21-9
     RL: COS (Cosmetic use); TEM (Technical or engineered material use); BIOL
     (Biological study); USES (Uses)
        (reduced odor in low mol. weight cationic polygalactomannan)
     622850-21-9 HCAPLUS
     1-Propanaminium, 3-chloro-N-ethyl-2-hydroxy-N,N-dimethyl-, chloride (9CI)
     (CA INDEX NAME)
```

IT

RN

CN

$$\begin{array}{c|c} \text{OH} & \text{Me} \\ | & | \\ \text{ClCH}_2 - \text{CH} - \text{CH}_2 - \text{N} \stackrel{+}{\longrightarrow} \text{Et} \\ | & | \\ \text{Me} \end{array}$$

● cl-

L15 ANSWER 7 OF 53 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

2005:1304732 HCAPLUS

DOCUMENT NUMBER:

144:171596

TITLE:

Electrical conductivity of some cationic

polysaccharides. I. Effects of polyelectrolyte concentration, charge density, substituent at the

ionic group, and solvent polarity

AUTHOR (S):

Ghimici, Luminita; Nichifor, Marieta

CORPORATE SOURCE:

"Petru Poni" Institute of Macromolecular Chemistry,

Aleea Grigore Ghica Voda, Iasi, 700487, Rom.

SOURCE:

Journal of Polymer Science, Part B: Polymer Physics

(2005), 43(24), 3584-3590 CODEN: JPBPEM; ISSN: 0887-6266

PUBLISHER:

John Wiley & Sons, Inc.

Journal English

consequently, of the equivalent conductivity values.

DOCUMENT TYPE: LANGUAGE:

Electrolytic conductivity behavior of some cationic polysaccharides in water, methanol, and the mixts. water/methanol is presented. The polyelectrolytes investigated contain quaternary ammonium salt groups, N-alkyl-N,N-dimethyl-2-hydroxypropyleneammonium chloride, attached to a dextran backbone. This study considers the influences of polymer concentration (1 + 10-6 < C < 1 + 10-2 monomol L-1) and the charge d. (ξ = 0.48-3.17) modified either by changing charge distance (b) or dielec. constant of the solvent (ε) on polyion-counterion interaction in salt-free solns. Above the critical value, ξc = 1, the variation of the equivalent conductivity (Λ) as a function of concentration is typical for a polyelectrolyte behavior. The conductometric data in water were analyzed in terms of the Manning's counterion condensation theory. The presence of longer alkyl chains at quaternary N atoms was found to have a negligible influence on the Λ values. The results show that the decrease of the medium polarity results in the decrease of the number of free ions and,

IT

874658-93-2 874658-96-5

RL: PRP (Properties)

(solvent and structure effects on elec. conductivity of cationic polysaccharides)

RN 874658-93-2 HCAPLUS

CN Dextran, 3-(butyldiethylammonio)-2-hydroxypropyl ether, chloride (9CI) (CA INDEX NAME)

CM 1

CRN 874658-92-1

CMF C11 H26 N O2 . x Unspecified

CM 2

CRN 874658-91-0 CMF C11 H26 N O2 OH

HO-CH2-CH CH2 N Bu-n

Εt

CM 3

CRN 9004-54-0 CMF Unspecified CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

RN874658-96-5 HCAPLUS

Dextran, 3-(diethyloctylammonio)-2-hydroxypropyl ether, chloride (9CI) CN (CA INDEX NAME)

CM 1

CRN 874658-95-4

CMF C15 H34 N O2 . x Unspecified

CM 2

CRN 874658-94-3 CMF C15 H34 N O2

CM 3

CRN 9004-54-0 CMF Unspecified CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

REFERENCE COUNT:

40 THERE ARE 40 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L15 ANSWER 8 OF 53 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

2005:1255400 HCAPLUS

DOCUMENT NUMBER:

145:126284

TITLE:

SOURCE:

AUTHOR(S):

Catalytic reaction of glycidyltrimethylammonium

chloride with polysaccharides

CORPORATE SOURCE:

Bendoraitiene, J.; Kavaliauskaite, R.; Klimaviciute, R.; Zemaitaitis, A.

Kauno Technologijos Universitetas, Kaunas, LT-50254, Lithuania

Chemine Technologija (Kaunas, Lithuania) (2005), (3),

61-67

CODEN: CTHEBZ; ISSN: 1392-1231

PUBLISHER:

Technologija

DOCUMENT TYPE:

Journal

LANGUAGE:

Lithuanian

During the modification of several polysaccharides with

glycidyltrimethylammonium chloride, the rate of epoxide consumption in main and side reactions was investigated. Polysaccharides (PS) with lower index of crystallinity were modified faster and easier. All investigated PS according to the amount of the quaternary ammonium groups obtained at the same conditions can be arranged in the following sequence: potato starch = maize starch = viscose > activated cellulose > native cellulose > flax = chitosan. As distinct from other PS, in the beginning of starch alkylation only the main reaction occurs.

IT 853065-51-7P

RL: SPN (Synthetic preparation); PREP (Preparation) (hccatalytic reaction of glycidyltrimethylammonium chloride with polysaccharides)

RN 853065-51-7 HCAPLUS

CN Starch, 6-[2-hydroxy-3-(trimethylammonio)propyl] ether, chloride (9CI) (CA INDEX NAME)

CM 1

CRN 853065-50-6

CMF C6 H16 N O2 . Unspecified

CM 2

CRN 44814-66-6 CMF C6 H16 N O2

 $^{
m OH}$ $^{
m HO-}$ $^{
m CH_2-}$ $^{
m CH-}$ $^{
m CH_2-}$ $^{
m N+Me_3}$

CM 3

CRN 9005-25-8 CMF Unspecified CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

L15 ANSWER 9 OF 53 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

2005:1106786 HCAPLUS

DOCUMENT NUMBER:

143:372822

TITLE:

Cationic, oxidized polysaccharides in

conditioning applications

INVENTOR(S):

Erazo-Majewicz, Paquita; Modi, Jashawant J.; Xu,

Zu-Feng

PATENT ASSIGNEE(S):

USA

1

SOURCE:

U.S. Pat. Appl. Publ., 29 pp.

CODEN: USXXCO

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2005227902	A1	20051013	US 2004-821013	20040408
PRIORITY APPLN. INFO.:			US 2004-821013	20040408
AP A cationic oxidiand	3 20110	agabarida or	doringting thoract that	- bag a

AB A cationic, oxidized polysaccharide or derivative thereof that has a mean average mol. weight (MW) between 50,000 and 1,000,000 and an aldehyde functionality content of at least 0.001 meq/g is used in personal care and household care compns. This cationic, oxidized polysaccharide

IT

RNCN

```
is prepared in continuous or batch processes using hydrolytic reagents,
     oxidizing reagents, or combination of hydrolytic reagents and oxidizing
     reagents. Personal care or household care compns. are prepared by adding
     the cationic, oxidized polysaccharide to a personal care or
     household composition containing at least one active ingredient other than the
     cationic, oxidized polysaccharide of this invention. For
     example, a shampoo formulation containing a cationic, oxidized guar polymer
     (MW 50200, cationic degree of substitution 0.18) 0.5%, together with HPMC
     0.5%, Amphosol CA 12%, Rhodapex ES STD 35%, and Glydant 0.5%, improved
     detangling of wet and dry hair by 62% and 35%, resp., when compared with
     the shampoo containing no polymer.
     442123-80-0 779343-54-3, Hydroxybutyl guar
     hydroxypropyltrimethylammonium chloride
     RL: COS (Cosmetic use); TEM (Technical or engineered material use); BIOL
     (Biological study); USES (Uses)
        (cationic, oxidized polysaccharides as conditioners and
        lubricants in cosmetics and household compns.)
     442123-80-0 HCAPLUS
     Guar gum, carboxymethyl 2-hydroxy-3-(trimethylammonio)propyl ether,
     chloride (9CI) (CA INDEX NAME)
     CM
          1
     CRN
          210555-56-9
     CMF
          C6 H16 N O2 . x C2 H4 O3 . x Unspecified
          CM
               2
          CRN
              44814-66-6
          CMF
              C6 H16 N O2
        OH
HO-CH_2-CH-CH_2-N+Me_3
          CM
               3
               9000-30-0
          CRN
          CMF
               Unspecified
          CCI
              PMS, MAN
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
          CM
          CRN
               79-14-1
          CMF
               C2 H4 O3
   0
HO- C- CH2- OH
     779343-54-3 HCAPLUS
     Guar gum, hydroxybutyl 2-hydroxy-3-(trimethylammonio)propyl ether,
     chloride (9CI) (CA INDEX NAME)
     CM
          1
     CRN 779343-53-2
```

Roy P. Issac

RN

CN

CMF C6 H16 N O2 . \times C4 H10 O2 . \times Unspecified

CM 2

CRN 168011-04-9 CMF C4 H10 O2 CCI IDS

 $_{\rm H_3C^-\,CH_2^-\,CH_2^-\,OH}$

D1-OH

CM 3

CRN 44814-66-6 CMF C6 H16 N O2

 $\begin{array}{c} \text{OH} \\ | \\ \text{HO-CH}_2\text{-CH-CH}_2\text{-N+Me}_3 \end{array}$

CM 4

CRN 9000-30-0 CMF Unspecified CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

L15 ANSWER 10 OF 53 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

2005:640360 HCAPLUS

DOCUMENT NUMBER:

NUMBER: 144:333362

TITLE:

Investigation on flocculation characteristics of

cationic polysaccharides: Novel polymeric

flocculants

AUTHOR(S):

Pal, Sagar; Singh, Ram Prakash

CORPORATE SOURCE:

Materials Science Center, Indian Institute Technology,

Kharagpur, 721 302, India

SOURCE:

Materials Research Innovations (2005), 9(2), 354-378

CODEN: MRINFV; ISSN: 1432-8917

PUBLISHER:

Matrice Technology Ltd.

DOCUMENT TYPE:

Journal

LANGUAGE:

English

AB Cationic polysaccharides, i.e., Cat AP, Cat AM, Cat Gly and Cat St, resp., were prepared from amylopectin, amylose, glycogen and starch by using 3-chloro-2-hydroxypropyltrimethylammonium chloride. Cat Gly is more branched that Cat AP, Cat St and Cat AM (from the intrinsic viscosity value). Also Cat Glycidyl shows a better performance in flocculation compared to Cat AP, Cat St and Cat AM. The enhanced efficiency of Cat Gly is because of its greater degree of branching and higher mol. weight Thus, with increase in branching and consequent cationic loading on them, the approachability of the contaminants towards the branched polysaccharides increases and thereby its increases the flocculation efficiency, in conformity with Singh's Easy Approachability Model.

IT 880254-01-3P, Glycogen 2-hydroxy-3-(trimethylammonio)propyl ether,

```
chloride
RL: PRP (Properties); SPN (Synthetic preparation); TEM (Technical or
engineered material use); PREP (Preparation); USES (Uses)
   (flocculation characteristics of cationic polysaccharides
   made from glycogen, amylopectin, amylose and starch)
880254-01-3 HCAPLUS
Glycogen, 2-hydroxy-3-(trimethylammonio)propyl ether, chloride (9CI) (CA
INDEX NAME)
CM
     1
CRN 880254-00-2
```

RN

CN

C6 H16 N O2 . x Unspecified

CM 2

CRN 44814-66-6 CMF C6 H16 N O2

OH $HO-CH_2-CH-CH_2-N+Me_3$

> CM 3

CRN 9005-79-2 Unspecified CMF CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

REFERENCE COUNT:

27 THERE ARE 27 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L15 ANSWER 11 OF 53 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

2005:623665 HCAPLUS

DOCUMENT NUMBER:

144:337796

TITLE:

Airway gene transfer using cationic emulsion as a

mucosal gene carrier

AUTHOR (S):

Kim, Tae Woo; Chung, Hesson; Kwon, Ick Chan; Sung, Ha

Chin; Shin, Byung Chul; Jeong, Seo Young

CORPORATE SOURCE:

Graduate School of Medicine, Korea University,

Sungbuk-ku, Seoul, 136-791, S. Korea

SOURCE:

Journal of Gene Medicine (2005), 7(6), 749-758

CODEN: JGMEFG; ISSN: 1099-498X

PUBLISHER:

John Wiley & Sons Ltd.

DOCUMENT TYPE:

Journal

LANGUAGE:

English

Delivery of genes to airway mucosa would be a very valuable method for gene therapy and vaccination. However, there have been few reports on suitable gene delivery systems for administration. In this study, the authors use a cationic emulsion system, which is phys. stable and facilitates the transfer of genes in the presence of up to 90% serum, as a mucosal gene carrier. Cationic lipid emulsion was formulated with squalene and 1,2-dioleoyl-sn-glycero-3-trimethylammonium propane (DOTAP) as major components. Emulsions formed stable complexes with DNA and protected and transferred DNA to target cells against DNase I digestion in the presence of mucosal destabilizers such as heparin sulfate (a polysaccharide of the glycosaminoglycan family in mucosa) and Newfectan (a natural lung extract of bovine) in an in vitro system. contrast, com. liposomes and counter liposomes, made with an identical lipid composition of emulsions, failed. After in vivo intranasal instillation, the cationic emulsion showed at least 200 times better transfection activity than the liposomal carriers in both nasal tissue and lung. findings show that cationic emulsions can mediate gene transfection into airway epithelium, making it a good choice for transferring therapeutic genes and for genetic vaccination against an pathogenic infection via an airway route.

TТ 286453-45-0

> RL: PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(airway gene transfer using cationic emulsion as mucosal gene carrier)

286453-45-0 HCAPLUS RN

1-Propanaminium, N,N,N-trimethyl-2,3-bis[[(9Z)-1-oxo-9-octadecenyl]oxy]-, CN (2S) - (9CI) (CA INDEX NAME)

Absolute stereochemistry. Double bond geometry as shown.

PAGE 1-A Me3+N Me (CH₂) 7 (CH₂) 7

PAGE 1-B

__ Me

38 THERE ARE 38 CITED REFERENCES AVAILABLE FOR THIS REFERENCE COUNT: RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

HCAPLUS COPYRIGHT 2006 ACS on STN L15 ANSWER 12 OF 53

ACCESSION NUMBER:

2005:612129 HCAPLUS

DOCUMENT NUMBER:

143:139166

TITLE:

Assembly of gas-filled microvesicle with active

component for contrast imaging

INVENTOR(S):

Schneider, Michel; Bussat, Philippe; Yan, Feng;

Senente, Anne

PATENT ASSIGNEE(S):

Bracco Research S. A., Switz.

SOURCE:

PCT Int. Appl., 93 pp. CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

FAMILY ACC. NUM. COUNT:

English

PATENT INFORMATION:

PATENT NO.				KIND DATE			APPLICATION NO.						DATE					
									- ·									
WO 2005063306				A1 20050714			1	WO 2004-IB4233						20041221				
		W:	ΑE,	AG,	AL,	AM,	ΑT,	ΑU,	ΑZ,	BA,	BB,	BG,	BR,	BW,	BY,	ΒZ,	CA,	CH,
			CN,	CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	EG,	ES,	FI,	GB,	GD,
			GE,	GH,	GM,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	KE,	KG,	KΡ,	KR,	ΚZ,	LC,
			LK,	LR,	LS,	LT,	LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	MZ,	NA,	NI,
			NO,	NZ,	OM,	PG,	PH,	ΡL,	PT,	RO,	RU,	SC,	SD,	SE,	SG,	SK,	SL,	SY,
			TJ,	TM,	TN.	TR.	TT.	TZ,	UA.	UG.	US.	UZ.	VC.	VN.	YU.	ZA.	ZM.	ZW

```
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
        AU 2004308757
                                           A1
                                                     20050714
                                                                         AU 2004-308757
                                                                                                                20041221
        CA 2545362
                                           A1
                                                     20050714
                                                                         CA 2004-2545362
                                                                                                                20041221
                                                     20060906
                                                                                                                20041221
        EP 1696965
                                          A1
                                                                         EP 2004-806412
              R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK, IS
        NO 2006003420
                                          Α
                                                     20060922
                                                                         NO 2006-3420
                                                                                                                20060724
                                                                                                          A 20031222
PRIORITY APPLN. INFO.:
                                                                         EP 2003-79014
                                                                         WO 2004-IB4233
                                                                                                          W 20041221
```

Assembly comprising a gas-filled microvesicle and a structural entity AB which is capable to associate through an electrostatic interaction to the outer surface of said microvesicle (microvesicle associated component - MAC), thereby modifying the physico-chemical properties thereof. Said MAC comprises a targeting ligand, a diagnostic agent or any combination thereof. Optionally a bioactive agent can further be associated to the MAC. The assembly of the invention can be formed from gas-filled microbubbles or microballoons and a MAC having preferably nanometric dimensions, e.g. a micelle, and is used as an active component in diagnostically and/or therapeutically active formulations, in particular for enhancing the imaging in the field of ultrasound contrast imaging, including targeted ultrasound imaging, ultrasound-mediated drug delivery and other imaging techniques such as mol. resonance imaging (MRI) or nuclear imaging.

IT 220609-41-6, DSTAP chloride

> RL: DGN (Diagnostic use); PEP (Physical, engineering or chemical process); PRP (Properties); PYP (Physical process); BIOL (Biological study); PROC (Process); USES (Uses)

(qas-filled microvesicle assembly for contrast imaging)

220609-41-6 HCAPLUS RN

CN 1-Propanaminium, N,N,N-trimethyl-2,3-bis[(1-oxooctadecyl)oxy]-, chloride (CA INDEX NAME)

● c1-

REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L15 ANSWER 13 OF 53 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2005:592092 HCAPLUS

DOCUMENT NUMBER: 143:120038

TITLE: Color changing liquid cleansing products containing

surfactants, electrolytes and coloring agents

Krzysik, Duane G.; Utschig, Julie M.; Cole, Douglas B. INVENTOR(S):

PATENT ASSIGNEE(S): Kimberly-Clark Worldwide, Inc., USA

SOURCE: U.S. Pat. Appl. Publ., 9 pp.

CODEN: USXXCO

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO. KIND DATE APPLICATION NO. DATE

```
US 2003-750230
     US 2005148490
                         A1
                                20050707
     WO 2005067875
                                            WO 2004-US25862
                         A1
                                20050728
        W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,
             CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,
             GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,
             LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI,
             NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY,
             TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
         RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM,
             AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK,
             EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE,
             SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE,
             SN, TD, TG
                                20061108
     GB 2425776
                                            GB 2006-14166
PRIORITY APPLN. INFO.:
                                            US 2003-750230
                                                                A 20031231
                                            WO 2004-US25862
                                                                W 20040809
```

AB Novel liquid cleansing products for cleansing the skin and hair are disclosed. The cleansing products are comprised of a first lamellar colored structured liquid and a second lamellar colored structured liquid that when dispensed from a suitable dispenser, mix together to form a new colored cleansing product prior to, and during, use. The first lamellar colored structured liquid comprises (by weight) about 10% to 80% of a first surfactant, about 0.1% to 10% of a first electrolyte, and about 0.001% to 10% of a first coloring agent. The second lamellar colored structured liquid comprises (by weight) about 10% to 80% of a second surfactant, about 0.1% to 10% of a second electrolyte, and about 0.001% to 10% of a second coloring agent, wherein the first coloring agent and the second coloring agent are different.

IT 203796-71-8 203796-72-9 203796-75-2

RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses) (color changing liquid cleansing products containing coloring agents, electrolytes and surfactants)

RN 203796-71-8 HCAPLUS

CN 1-Propanaminium, 3-(dodecyloxy)-2-hydroxy-N-(3-phosphonopropyl)-N,N-dipropyl-, inner salt (9CI) (CA INDEX NAME)

Me- (CH₂)₁₁-O-CH₂-CH-CH₂-
$$\frac{0}{N}$$
+ (CH₂)₃-PO₃H- $\frac{1}{N}$ -Pr

RN 203796-72-9 HCAPLUS

CN 1-Dodecanaminium, N-(3-carboxypropyl)-2-hydroxy-N,N-bis(2-hydroxyethyl)-,
inner salt (9CI) (CA INDEX NAME)

RN 203796-75-2 HCAPLUS

CN 1-Hexadecanaminium, N,N-bis(3-hydroxypropyl)-N-[4-hydroxy-5-(sulfooxy)pentyl]-, inner salt (9CI) (CA INDEX NAME)

197974-74-6, DMTAP

(delivery of drugs to brain)

IT

```
OH
                           (CH<sub>2</sub>)<sub>3</sub> OH
-0.3S-0-CH_2 CH (CH_2)_3-N^+ (CH_2)_{15}-Me
                           (CH<sub>2</sub>)<sub>3</sub> - OH
L15 ANSWER 14 OF 53 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER:
                            2004:1156469 HCAPLUS
DOCUMENT NUMBER:
                            142:79947
TITLE:
                            Method for delivering drugs to the brain
                            Rabinow, Barrett E.; Gendelman, Howard E.; Kipp, James
INVENTOR (S):
PATENT ASSIGNEE(S):
                            Baxter International Inc., USA
SOURCE:
                            PCT Int. Appl., 48 pp.
                            CODEN: PIXXD2
DOCUMENT TYPE:
                            Patent
                            English
LANGUAGE:
FAMILY ACC. NUM. COUNT:
PATENT INFORMATION:
                                                                          DATE
     PATENT NO.
                            KIND
                                    DATE APPLICATION NO.
                                                 -----
                            ----
                                    -----
                                                                           -----
                            A2
                                               WO 2004-US18850
                                                                           20040615
     WO 2004112747
                                    20041229
                                    20050303
     WO 2004112747
                            A3
          W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,
              CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,
              GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI,
              NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
          RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE,
              SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE,
              SN, TD, TG
     AU 2004249172
                                                 AU 2004-249172
                             A1
                                    20041229
                                                                            20040615
     CA 2540695
                                    20041229
                                                 CA 2004-2540695
                             A1
                                                                            20040615
     US 2005048002
                             A1
                                    20050303
                                               US 2004-868680
EP 2004-776540
                                                 US 2004-868680
                                                                            20040615
     EP 1663158
                                    20060607
                                                                            20040615
                            A2
             AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK
                                                                            20060404
     NO 2006001537
                            Α
                                    20060404
                                                 NO 2006-1537
PRIORITY APPLN. INFO.:
                                                  US 2003-482096P
                                                                        P 20030624
                                                  WO 2004-US18850
                                                                        W 20040615
AB
     The present invention is concerned with delivering a pharmaceutical composition
     to the brain of a mammalian subject for treating brain diseases or
     disorders. The process includes the steps of: (i) providing a dispersion
     of the pharmaceutical composition as particles having an average particle size of
     from about 150 nm to 100 \mu, and (ii) administering the dispersion to
     the mammalian subject for delivery to the brain of a portion of the
     pharmaceutical composition by cells capable of reaching the brain. The
     dispersion of the pharmaceutical composition as particles, e.g., can be
     subjected tp phagocytosis or can be adsorbed by the cells prior or
     subsequent to administration into the mammalian subject. The dispersion
     of the pharmaceutical composition can be administered to the central nervous
     system or the vascular system. After administration, the loaded cells
     transport the pharmaceutical composition as particles into the brain.
```

RN 197974-74-6 HCAPLUS

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)

Roy P. Issac Page 50

1-Propanaminium, N,N,N-trimethyl-2,3-bis[(1-oxotetradecyl)oxy]-, chloride (CA INDEX NAME)

C1 -

L15 ANSWER 15 OF 53 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2004:996225 HCAPLUS

DOCUMENT NUMBER: 141:415607

TITLE: Cation-modified alginic acid derivative and cosmetic

preparation composition containing the substance

INVENTOR (S): Mori, Yoshihiko; Yokoyama, Hiroaki

PATENT ASSIGNEE(S): Toho Chemical Industry Co., Ltd., Japan

PCT Int. Appl., 75 pp. SOURCE:

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.					KIND DATE			1	APPLICATION NO.						DATE				
	WO	WO 2004099259				A1 20041118			1	WO 2004-JP6476						20040507			
		W:	ΑE,	AG,	AL,	AM,	ΑT,	AU,	AZ,	BA,	BB,	BG,	BR,	BW,	BY,	ΒZ,	CA,	CH,	
			CN,	CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	EG,	ES,	FI,	GB,	GD,	
			GE,	GH,	GM,	HR,	ΗU,	ID,	ΙL,	IN,	IS,	JP,	KΕ,	KG,	ΚP,	KR,	ΚZ,	LC,	
			LK,	LR,	LS,	LT,	LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	MZ,	NA,	NΙ,	
			NO,	NZ,	OM,	PG,	PH,	PL,	PT,	RO,	RU,	SC,	SD,	SE,	SG,	SK,	SL,	SY,	
			ТJ,	TM,	TN,	TR,	TT,	TZ,	UA,	ŪĠ,	US,	UΖ,	VC,	VN,	YU,	ZA,	ZM,	zw	
		RW:	BW,	GH,	GM,	KE,	LS,	MW,	MZ,	NA,	SD,	SL,	SZ,	TZ,	UG,	ZM,	ZW,	AM,	
			ΑZ,	BY,	KG,	ΚZ,	MD,	RU,	ТJ,	TM,	ΑT,	BE,	BG,	CH,	CY,	CZ,	DE,	DK,	
			EE,	ES,	FI,	FR,	GB,	GR,	HU,	ΙE,	ΙT,	LU,	MC,	NL,	ΡL,	PT,	RO,	SE,	
			SI,	SK,	TR,	BF,	ВJ,	CF,	CG,	CI,	CM,	GA,	GN,	GQ,	GW,	ML,	MR,	ΝE,	
			SN.	TD.	TG														

PRIORITY APPLN. INFO.:

JP 2003-167130 A 20030509

Disclosed is a cation-modified alginic acid derivative When incorporated into cosmetic preparation compns. such as a hair treatment composition and a cosmetic preparation composition for the skin, the derivative improves lathering and the feel of the lather as a lather quality. When incorporated into hair treatment compns., the derivative produces an excellent conditioning effect and gives a satisfactory finish feeling. When incorporated into cosmetic preparation compns. for the skin, such as a body detergent, the derivative gives an improved use feeling due to its conditioning effect. The cation-modified alginic acid derivative is obtained by incorporating a specific quaternary nitrogen-containing group into part of the hydroxy groups contained in an alginic acid derivative which is a natural polysaccharide contained in the form of a calcium salt in the cell walls of a seaweed belonging to brown algae (Phaeophyceae), e.g., tangle or wakame seaweed, and is a polymer made up of uronic acid units derived from L-glucuronic acid and D-mannuronic acid and bonded to each other through 1,4-glycoside bonds. Also provided is a cosmetic preparation composition containing the cation-modified alginic acid derivative Thus, alginic acid (Duck Acid) solution was reacted with 3-halogeno-2-hydroxypropyldimethylmonolaurylammonium chloride to obtain a cationic alginic acid derivative for shampoo composition

IT 217327-30-5DP, halogenated, reaction products with alginic acid

Roy P. Issac

derivs.

RL: COS (Cosmetic use); SPN (Synthetic preparation); BIOL (Biological

study); PREP (Preparation); USES (Uses)

(cation-modified alginic acid derivative and cosmetic preparation composition containing

substance)

RN 217327-30-5 HCAPLUS

$$\begin{array}{cccc} & \text{OH} & \text{Me} \\ & & \\ \text{Me-CH-CH}_2 - \text{N}^{\frac{1}{-}} & \text{(CH}_2)_{11} - \text{Me} \\ & & \\ & & \\ & & \\ & & \\ \text{Me} \end{array}$$

• cl -

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L15 ANSWER 16 OF 53 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2004:996224 HCAPLUS

DOCUMENT NUMBER: 141:415606

TITLE: Cation-modified galactomannan polysaccharide

and cosmetic composition containing the same

INVENTOR(S): Takeda, Hiromitsu; Mori, Yoshihiko

PATENT ASSIGNEE(S): Toho Chemical Industry Co., Ltd., Japan

SOURCE: PCT Int. Appl., 65 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

		T NO.	KIND DATE								DATE						
		040992												2	0040	507	
	W	: AE,	AG,	AL,	AM,	AT,	AU,	ΑZ,	BA,	BB,	BG,	BR,	BW,	BY,	BZ,	CA,	CH,
			CO,														
			GH,														
		LK,	LR,	LS,	LT,	LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	MZ,	NA,	NI,
			NZ,														
			TM,														
	R	W: BW,															
			BY,														-
			ES,														
			SK,														
			TD,		-		•	•	•	•				•	·	•	•
	EP 16	30176			A1		2006	0301	EP 2004-731763					20040507			
	R	: AT,	BE,	CH,	DE,	DK,	ES,	FR,	GB,	GR,	IT,	LI,	LU,	NL,	SE,	MC,	PT,
			SI,											•	•	•	•
	CN 17	77623					2006								2	0040	507
	US 20	062752	35		A1		2006	1207	1	US 2	005-	5548	74		2	0051	031
PRIORITY APPLN. INFO.:									,	JP 2	003-	1671	31	1	A 2	0030	509
									1	WO 2	004-	JP65	12	7	v 2	0040	507
AB	Discl	osed a	modified galactom														

AB Disclosed a cation-modified galactomannan polysaccharide that when mixed in a hair treatment composition, realizes excellent conditioning effect and, after drying, moist nice feel and flexibility, and that when mixed in a skin cosmetic composition such as body soap, realizes conditioning

effect and, due to emulsification performance, enhanced feeling after use. In particular, a cation-modified galactomannan polysaccharide obtained by providing a galactomannan polysaccharide being a nonionic polysaccharide comprising a main chain of mannose constituent units having side chains of galactose units wherein the ratio of mannose and galactose contained is 1:1, the polysaccharide produced from the albumen portion of seeds of leguminous plant fenugreek (Trigonella foenum-graecum); and introducing a specified quaternary nitrogenous group at some of the hydroxyls contained in the galactomannan polysaccharide. There is further provided a cosmetic composition containing the cation-modified galactomannan polysaccharide. Thus, fenugreek germ powder solution was reacted with glycidyltrimethylammonium chloride to obtain a cationic galactomannan polysaccharide. The obtained cationic galactomannan polysaccharide was combined at 0.7 % with cationic water-soluble polymer (Catinal HC-100) 0.4, sodium polyoxyethylenelaurylether sulfate 9, coco fatty acid amidopropylbetaine 4.5, coco fatty acid monoethanolamide 2.5, sodium edetate 0.1, sodium benzoate 0.1, citric acid q.s., to pH 5.5-6, and water balance to 100 % to make a shampoo composition

IT 217327-30-5DP, halogenated derivs, reaction products with galactomannans

RL: COS (Cosmetic use); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)

(cation-modified galactomannan polysaccharide and cosmetic composition containing same)

RN217327-30-5 HCAPLUS

CN 1-Dodecanaminium, N-(2-hydroxypropyl)-N,N-dimethyl-, chloride (9CI) INDEX NAME)

Cl-

REFERENCE COUNT:

11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L15 ANSWER 17 OF 53 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

2004:902140 HCAPLUS

DOCUMENT NUMBER:

141:370216

TITLE:

Cationic, oxidized polysaccharides in

conditioning applications

INVENTOR (S):

Erazo-Majewic, Paquita; Modi, Jashawant J.; Xu,

Zu-Feng

PATENT ASSIGNEE(S):

Hercules Incorporated, USA

SOURCE:

PCT Int. Appl., 69 pp. CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
				-
WO 2004091557	A2	20041028	WO 2004-US11166	20040407
WO 2004091557	A3	20050127		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,

```
CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,
             GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,
             LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI,
             NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY,
             TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
         RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ,
             BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE,
             ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI,
             SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN,
             TD, TG
     CA 2519373
                          Α1
                                20041028
                                            CA 2004-2519373
                                                                    20040407
     EP 1611157
                                            EP 2004-750005
                          A2
                                20060104
                                                                    20040407
            AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
         R:
             IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, HR
     BR 2004009243
                          Α
                                20060328
                                            BR 2004-9243
                                                                    20040407
     CN 1780857
                          Α
                                20060531
                                            CN 2004-80009535
                                                                    20040407
     JP 2006522829
                          Т
                                            JP 2006-509912
                                20061005
                                                                    20040407
PRIORITY APPLN. INFO.:
                                            US 2003-461866P
                                                                 P
                                                                  20030409
                                            WO 2004-US11166
                                                                W 20040407
AB
     A cationic, oxidized polysaccharide or derivative thereof that has a
     mean average mol. weight (Mw) having a lower limit of 50,000 and an upper limit
     of 1,000,000 and an aldehyde functionality content of at least 0.001 meq/g
     is used in personal care and household care compns. This cationic,
     oxidized polysaccharide is prepared in continuous or batch
     processes using hydrolytic reagents, oxidizing reagents, or combination of
     hydrolytic reagents and oxidizing reagents. Personal care or household
     care compns. are prepared by adding the cationic, oxidized
     polysaccharide to a personal care or household composition containing at
     least one active ingredient other than the cationic, oxidized
     polysaccharide of this invention. For example, N-Hance 3205
     cationic guar oxidatively degraded with hydrogen peroxide was incorporated
     into conditioning shampoo together with HPMC60SH4000, Amphosol CA,
     Rhodapex ES STD and sodium chloride and Glydant.
IT
     442123-80-0 622850-21-9D, polysaccharide
     derivs. 779343-54-3, Hydroxybutyl guar hydroxypropyl
     trimethylammonium chloride
     RL: COS (Cosmetic use); TEM (Technical or engineered material use); BIOL
     (Biological study); USES (Uses)
        (cosmetic and household care compns. containing low mol. weight cationic
        oxidized polysaccharides for improved viscosity and
        stability)
RN
     442123-80-0 HCAPLUS
     Guar gum, carboxymethyl 2-hydroxy-3-(trimethylammonio)propyl ether,
CN
     chloride (9CI) (CA INDEX NAME)
     CM
          1
         210555-56-9
     CMF
          C6 H16 N O2 . x C2 H4 O3 . x Unspecified
          CM
               44814-66-6
          CRN
          CMF
               C6 H16 N O2
        OH
HO-CH2-CH-CH2-N+Me3
          CM
               3
```

CRN 9000-30-0 CMF Unspecified CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 4

CRN 79-14-1 CMF C2 H4 O3

RN 622850-21-9 HCAPLUS

CN 1-Propanaminium, 3-chloro-N-ethyl-2-hydroxy-N,N-dimethyl-, chloride (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} \text{OH} & \text{Me} \\ \mid & \mid \\ \text{C1CH}_2 - \text{CH} - \text{CH}_2 - \text{N} \xrightarrow{+} \text{Et} \\ \mid & \mid \\ \text{Me} \end{array}$$

● Cl-

RN 779343-54-3 HCAPLUS

CN Guar gum, hydroxybutyl 2-hydroxy-3-(trimethylammonio)propyl ether, chloride (9CI) (CA INDEX NAME)

CM 1

CRN 779343-53-2

CMF C6 H16 N O2 . \times C4 H10 O2 . \times Unspecified

CM 2

CRN 168011-04-9

CMF C4 H10 O2

CCI IDS

$$_{\rm H_3C^-CH_2^-CH_2^-OH}$$

D1- OH

CM 3

CRN 44814-66-6 CMF C6 H16 N O2 OH

HO-CH2-CH CH2-N+Me3

CM 4

CRN 9000-30-0 CMF Unspecified CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

L15 ANSWER 18 OF 53 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2004:633967 HCAPLUS

DOCUMENT NUMBER: 141:158838

TITLE: Cationic graft copolymer for non-viral gene delivery

vector, copolymer preparation, and transfection

ADDITION NO

reagent

KTMD

INVENTOR(S):
Onishi, Yasuhiko

PATENT ASSIGNEE(S): Japan

SOURCE: PCT Int. Appl., 24 pp.

CODEN: PIXXD2

משעת

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.					KIND DATE							DATE					
WO	2004	0654	40				2004	0805			2004-				2	0040	108
WO	2004	06544	40		A3		2004	1202									
WO	2004	0654	40		B1		2005	0210									
	W:	ΑE,	AG,	AL,	AM,	AT,	AU,	ΑZ,	ΒA,	BB,	BG,	BR,	BW,	BY,	BZ,	CA,	CH,
		CN,	CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	EG,	ES,	FI,	GB,	GD,
		GE,	GH,	GM,	HR,	HU,	ID,	IL,	IN,	IS,	KE,	KG,	KP,	KR,	ΚZ,	LC,	LK,
		LR,	LS,	LT,	LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	MZ,	NA		
JP	2005	1026	81		Α		2005	0421	,	JP 2	2003-	4348	51		2	0031	226
AU	2004	2055	51		A1		2004	0805		AU 2	2004-	2055	51		2	0040	108
CA	2553	313			A1		2004	0805		CA 2	2004-	2553	313		2	0040	108
EP	1583	782			A2		2005	1012	:	EP 2	2004 -	7007	84		2	0040	108
	R:	ΑT,	BE,	CH,	DE,	DK,	ES,	FR,	GB,	GR,	IT,	LI,	LU,	NL,	SE,	MC,	PT,
		ΙE,	SI,	LT,	LV,	FI,	RO,	MK,	CY,	ΑL,	TR,	BG,	CZ,	EE,	HU,	SK	
US	2005	2871	10		A1		2005	1229	1	US 2	2005-	5369	01		2	0050	527
PRIORIT	Y APP	LN.	INFO	. :						JP 2	2003 -	4516	3	7	A 2	0030	117
										JP 2	2003-	32054	41	7	A 2	0030	912
									,	JP 2	2003-	4348	51	7	A 2	0031	226
									1	WO 2	2004 -	JP86		V	1 2	0040	108
					_		_			_							

AB A cationic graft copolymer for a nonviral gene delivery vector comprises a unit derived from a cationic derivative of a water-soluble linear polymer having a hydroxyl groups, namely, a cationic polysaccharide of the following formula (1) [C6H7O2(OH)3-a(OX)a]x H2O (1) and the cationic derivative of polyvinyl alc. of formula (2) or the cationic derivative of the partial hydrolyzed polyvinyl alc. of (3), [CH2CH(OH)1-b(OX)b]n (2) or [CH2CH(OH)1-b-c(OX)b(OAc)c]n (3) and a unit derived from a polymerizable olefin compound (4) (CR4R6CR5R7). Further, the variables are defined as X = (CH2)mR1, where R1 = NH2, N(CH3)2, N(Et)2, N+(Et)3, N+(CH2)2CH2CH(OH)CH3, N+(Et)2CH2CH(OH)CH3, N+(Et)2(Et)N(Et)2, C6H4NH2, and COC6H4NH2, COR2 radical where R2 = CH2NH2 or C6H4NH2, CH2CH(OH)CH2R3, where R3 = NH2, N(CH3)2, N(Et)2, and N+(Et)3, m = 1-3, 0< a <3, 0< b <1, x and n ≥5, 1> b+c, and Ac is acetyl radical; R4, R5 and R6 = H and Me and R7 = COR8, R8 = H, C1-12 alkyl, cyclohexyl, C1-C4 hydroxyalkyl, C1-C8

aminoalkyl, C1-C8 dialkylaminoalkyl, glycidyl, THF radical, C1-C4 lower alkyl-substituted THF radical, benzyl, (CH2CH2O)yCH2CH2OH, where y = 1-10, and N(R9)2 where the two R9's = H or a C1-4 alkyl, COCN, OH, COR10, where R10 = C1-8 alkyl; Ph; tolyl; pyridine; or pyrrolidone radical; and COR11, where R11 = NH2, NHCH3, N,N-dimethylamino radical, N,N-dimethylaminopropylamino radical, and morpholine radical.

IT 731772-43-3P

RL: BSU (Biological study, unclassified); IMF (Industrial manufacture); BIOL (Biological study); PREP (Preparation)

(cationic graft copolymer for non-viral gene delivery vector and transfection reagent)

RN 731772-43-3 HCAPLUS

CN Pullulan, 2-hydroxy-3-(trimethylammonio)propyl ether, chloride, polymer with methyl 2-propenoate, graft (9CI) (CA INDEX NAME)

CM 1

CRN 96-33-3 CMF C4 H6 O2

0 || MeO- C- CH- CH₂

CM 2

CRN 105809-01-6 CMF C6 H16 N O2 . x Cl . x Unspecified

CM 3

CRN 105697-77-6 CMF C6 H16 N O2 . x Unspecified

CM 4

CRN 44814-66-6 CMF C6 H16 N O2

 $_{\rm HO-\,CH_2-\,CH-\,CH_2-\,N+Me_3}^{\rm OH}$

CM 5

CRN 9057-02-7 CMF Unspecified CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

L15 ANSWER 19 OF 53 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

2004:550524 HCAPLUS

DOCUMENT NUMBER:

141:82308

TITLE:

Pretreatment using ethanol, oxidizing agents, and/or saccharide-containing compounds for enhancement of adenovirus transduction in the bladder epithelium Ramesh, Nagarajan; Frey, David; Memarzadeh, Bahram;

INVENTOR(S):

(b). Ka

Yu, Dechao

USA

PATENT ASSIGNEE(S):

SOURCE:

U.S. Pat. Appl. Publ., 83 pp.

CODEN: USXXCO

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

```
APPLICATION NO.
    PATENT NO.
                       KIND
                             DATE
                                                                DATE
                       ----
                              _____
                                          -----
                                                                _____
                       A1
    US 2004131590
                              20040708 US 2002-327869
                                                               20021226
    CA 2510903
                              20040722 CA 2003-2510903
                        A1
                                                               20031224
    WO 2004060303
                                          WO 2003-US41379
                        A2
                              20040722
                                                               20031224
    WO 2004060303
                        A3
                              20051124
        W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,
            CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,
            GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,
            LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO,
            NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ,
            TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW
        RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ,
            BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE,
            ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK,
            TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
    AU 2003299972
                        A1
                              20040729 AU 2003-299972
                                                               20031224
    US 2004176318
                              20040909
                                         US 2003-743813
                        Α1
                                                                20031224
                                        EP 2003-800237
    EP 1583502
                              20051012
                        A2
                                                                20031224
        R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
            IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK
    CN 1753618
                        Α
                              20060329
                                        CN 2003-80107620
                                                                20031224
    JP 2006512398
                        Т
                                          JP 2004-565744
                              20060413
                                                                20031224
PRIORITY APPLN. INFO.:
                                          US 2002-327869
                                                             A 20021226
                                          WO 2003-US41379
                                                            W 20031224
```

OTHER SOURCE(S): MARPAT 141:82308

This invention relates to the use of transduction enhancing agents that render the bladder umbrella cell layer more susceptible to infection with a viral gene delivery than would be possible without treatment. The present inventors have found that pre-treating mouse bladders with aqueous solns. of various compds. consistently increased transduction to greater than 60% of the bladder surface, vs. an untreated percent transduction of no more than 10%. A first method involves contacting the luminal surface of the bladder with a composition comprising a transduction enhancing agent and an oncolytic virus. Alternatively, the luminal surface of the bladder can be contacted first with a pretreatment composition comprising a transduction enhancing agent and, subsequently, with a composition comprising an oncolytic virus.

IT 716363-22-3

RL: ARG (Analytical reagent use); BSU (Biological study, unclassified); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)

(pretreatment agent; pretreatment using ethanol, oxidizing agents, and/or saccharide-containing compds. for enhancement of adenovirus transduction in bladder epithelium)

RN 716363-22-3 HCAPLUS

CN Cholest-5-en-3-ol (3β) -, mixt. with oxychlorosene sodium and N,N,N-trimethyl-2,3-bis[[(9Z)-1-oxo-9-octadecenyl]oxy]-1-propanaminium methyl sulfate (9CI) (CA INDEX NAME)

CM 1

CRN 52906-84-0 CMF Unspecified

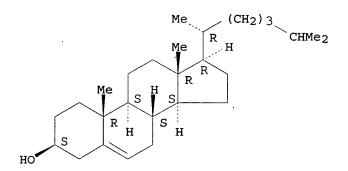
CCI MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 57-88-5 CMF C27 H46 O

Absolute stereochemistry.



CM 3

CRN 144189-73-1 CMF C42 H80 N O4 . C H3 O4 S

CM 4

CRN 113669-21-9 CMF C42 H80 N O4

Double bond geometry as shown.

PAGE 1-A

Me
$$(CH_2)$$
 7 Z (CH_2) 7 Z (CH_2) 7 Z (CH_2) 7 Z (CH_2) 7

PAGE 1-B

__ Me

CM 5

CRN 21228-90-0 CMF C H3 O4 S

```
Me- 0 SO3-
```

L15 ANSWER 20 OF 53 HCAPLUS COPYRIGHT 2006 ACS on STN ACCESSION NUMBER: 2004:433045 HCAPLUS DOCUMENT NUMBER: 140:428668 TITLE: Cationically modified polysaccharides, and cosmetic compositions containing them INVENTOR(S): Mori, Yoshihiko; Hashimoto, Goro; Yoshida, Katsunori PATENT ASSIGNEE(S): Toho Chemical Industry Co., Ltd., Japan; Shiseido Co., Ltd. SOURCE: Jpn. Kokai Tokkyo Koho, 37 pp. CODEN: JKXXAF DOCUMENT TYPE: Patent LANGUAGE: Japanese FAMILY ACC. NUM. COUNT: PATENT INFORMATION: PATENT NO. KIND DATE APPLICATION NO. DATE -----_ _ _ _ ----------JP 2004149573 Α 20040527 JP 2002-313372 20021028 PRIORITY APPLN. INFO.: JP 2002-313372 20021028 Part of OH groups of heat-gelling polysaccharides are substituted with quaternary ammonium groups O(R4O)nCH2CH(OH)CH2N+R1R2R3 X-(R1, R2 = C1-3 alkyl; R3 = C1-24 alkyl; X- = anion; n = 0, 1-30; when n =1-30, then (R40)n is polyalkylene glycol chain comprising one kind of C2-4 alkylene oxide and/or polyalkylene glycol chain comprising ≥2 kinds of C2-4 alkylene oxide) to give the modified polysaccharides having the content of the cations derived from the quaternary ammonium groups of 0.5-3.5 mequiv/g. Curdlan was treated with glycidyltrimethylammonium chloride in an iso-PrOH-aqueous NaOH mixture at 50° for 3 h and then neutralized with aqueous HCl in iso-PrOH to give a quaternary ammonium-modified curdlan (cation content 0.95 meguiv/q). The modified curdlan showed higher hair-styling effect than the unmodified one. Formulation examples of shampoos, hair rinses, conditioners, body cleansers, and mascaras are given. IT 691871-86-0P 691871-90-6P 691871-92-8P 691871-96-2P 691872-06-7P RL: COS (Cosmetic use); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses) (preparation of quaternary ammonium-modified polysaccharides for hair-styling conditioners and cosmetics) RN 691871-86-0 HCAPLUS CN Curdlan, 2-hydroxy-3-(trimethylammonio)propyl ether, chloride (9CI) INDEX NAME) CM 1 CRN 691871-85-9 C6 H16 N O2 . x Unspecified CM 2 CRN 54724-00-4 CMF Unspecified CCI PMS, MAN *** STRUCTURE DIAGRAM IS NOT AVAILABLE *** CM 3 CRN 44814-66-6

CMF C6 H16 N O2

Roy P. Issac

CM

CRN CMF

CCI

3

9051-83-6

PMS, MAN

Unspecified

```
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN
     691871-96-2 HCAPLUS
CN
     Curdlan, polymer with methyloxirane and oxirane, 2-hydroxy-3-
     (trimethylammonio)propyl ether, graft, chloride, graft (9CI) (CA INDEX
     NAME)
     CM
          1
         691871-95-1
         C6 H16 N O2 . x (C3 H6 O . C2 H4 O . Unspecified)x
          CM
          CRN
               44814-66-6
              C6 H16 N O2
          CMF
        OH
HO-CH_2-CH-CH_2-N+Me_3
          CM
               3
               691871-94-0
          CRN
          CMF
               (C3 H6 O . C2 H4 O . Unspecified)x
          CCI
               PMS
               CM
               CRN
                    54724-00-4
                    Unspecified
               CMF
               CCI PMS, MAN
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
               CM
               CRN
                    75-56-9
               CMF
                    C3 H6 O
     CH<sub>3</sub>
               CM
                    6
               CRN
                   75-21-8
                    C2 H4 O
               CMF
```

RN 691872-06-7 HCAPLUS CN β -D-Glucan, (1 \rightarrow 3)-, 2-hydroxy-3-(trimethylammonio)propyl ether, chloride (9CI) (CA INDEX NAME)

CM 1

CRN 691872-05-6

CMF C6 H16 N O2 . x Unspecified

CM 2

CRN 44814-66-6 CMF C6 H16 N O2

 $\begin{array}{c} \text{OH} \\ | \\ \text{HO--- CH}_2 - \text{CH--- CH}_2 - \text{N+Me}_3 \end{array}$

CM 3

CRN 9051-97-2 CMF Unspecified CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

=> fil stng

COST IN U.S. DOLLARS SINCE FILE TOTAL ENTRY SESSION FULL ESTIMATED COST 114.90 484.05

114.90 404.0

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS) SINCE FILE TOTAL ENTRY SESSION

CA SUBSCRIBER PRICE -15.75 -19.50

FILE 'STNGUIDE' ENTERED AT 18:42:17 ON 20 DEC 2006
USE IS SUBJECT TO THE TERMS OF YOUR CUSTOMER AGREEMENT
COPYRIGHT (C) 2006 AMERICAN CHEMICAL SOCIETY, JAPAN SCIENCE
AND TECHNOLOGY CORPORATION, AND FACHINFORMATIONSZENTRUM KARLSRUHE

FILE CONTAINS CURRENT INFORMATION.
LAST RELOADED: Dec 19, 2006 (20061219/UP).

=> d his

(FILE 'HOME' ENTERED AT 18:30:53 ON 20 DEC 2006)

FILE 'REGISTRY' ENTERED AT 18:31:02 ON 20 DEC 2006 L1 STRUCTURE UPLOADED

FILE 'STNGUIDE' ENTERED AT 18:31:28 ON 20 DEC 2006

FILE 'REGISTRY' ENTERED AT 18:32:28 ON 20 DEC 2006

L2 STRUCTURE UPLOADED

L3 8 S L2 SSS SAM

FILE 'STNGUIDE' ENTERED AT 18:33:13 ON 20 DEC 2006

FILE 'REGISTRY' ENTERED AT 18:33:32 ON 20 DEC 2006 L4 698 S L2 SSS FULL

• FILE 'HCAPLUS' ENTERED AT 18:33:51 ON 20 DEC 2006 L5 267 S L4 FILE 'STNGUIDE' ENTERED AT 18:33:58 ON 20 DEC 2006

FILE 'REGISTRY' ENTERED AT 18:36:06 ON 20 DEC 2006

L6 STRUCTURE UPLOADED

L7 19 S L6 SSS SAM

FILE 'STNGUIDE' ENTERED AT 18:36:44 ON 20 DEC 2006

FILE 'HCAPLUS' ENTERED AT 18:37:29 ON 20 DEC 2006

L8 0 S L5 AND SACCHARIDE

L9 94657 S POLYSACCHARIDE

L10 5 S L5 AND L9

FILE 'STNGUIDE' ENTERED AT 18:38:44 ON 20 DEC 2006

FILE 'REGISTRY' ENTERED AT 18:40:02 ON 20 DEC 2006

STRUCTURE UPLOADED

L12 19 S L11 SSS SAM

L13 8234 S L11 SSS FULL

FILE 'HCAPLUS' ENTERED AT 18:40:44 ON 20 DEC 2006

L14 1602 S L13

L15 53 S L14 AND L9

L16 20 S L15 AND 1800<=PY<=2002

FILE 'STNGUIDE' ENTERED AT 18:42:17 ON 20 DEC 2006

=> fil hcaplus

L11

COST IN U.S. DOLLARS SINCE FILE TOTAL

ENTRY SESSION

FULL ESTIMATED COST 0.84 484.89

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS) SINCE FILE TOTAL

ENTRY SESSION

CA SUBSCRIBER PRICE 0.00 -19.50

FILE 'HCAPLUS' ENTERED AT 18:50:35 ON 20 DEC 2006
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2006 AMERICAN CHEMICAL SOCIETY (ACS)

Copyright of the articles to which records in this database refer is held by the publishers listed in the PUBLISHER (PB) field (available for records published or updated in Chemical Abstracts after December 26, 1996), unless otherwise indicated in the original publications. The CA Lexicon is the copyrighted intellectual property of the the American Chemical Society and is provided to assist you in searching databases on STN. Any dissemination, distribution, copying, or storing of this information, without the prior written consent of CAS, is strictly prohibited.

FILE COVERS 1907 - 20 Dec 2006 VOL 145 ISS 26 FILE LAST UPDATED: 19 Dec 2006 (20061219/ED)

New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> s 114 and 15

L17 59 L14 AND L5

=> s 117 and 19

L18

1 L17 AND L9

=> d l18 ti

L18 ANSWER 1 OF 1 HCAPLUS COPYRIGHT 2006 ACS on STN

TI Cationised polysaccharide product, preparation, and use for production of paper

=> fil stng COST IN U.S. DOLLARS SINCE FILE TOTAL ENTRY SESSION FULL ESTIMATED COST 487.75 2.86 DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS) SINCE FILE TOTAL ENTRY SESSION CA SUBSCRIBER PRICE -19.50 0.00

FILE 'STNGUIDE' ENTERED AT 18:51:16 ON 20 DEC 2006
USE IS SUBJECT TO THE TERMS OF YOUR CUSTOMER AGREEMENT.
COPYRIGHT (C) 2006 AMERICAN CHEMICAL SOCIETY, JAPAN SCIENCE
AND TECHNOLOGY CORPORATION, AND FACHINFORMATIONSZENTRUM KARLSRUHE

FILE CONTAINS CURRENT INFORMATION.
LAST RELOADED: Dec 19, 2006 (20061219/UP).

=> fil hcaplus COST IN U.S. DOLLARS SINCE FILE TOTAL ENTRY SESSION FULL ESTIMATED COST 0.30 488.05 DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS) SINCE FILE TOTAL ENTRY SESSION CA SUBSCRIBER PRICE 0.00 -19.50

FILE 'HCAPLUS' ENTERED AT 18:54:00 ON 20 DEC 2006
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2006 AMERICAN CHEMICAL SOCIETY (ACS)

Copyright of the articles to which records in this database refer is held by the publishers listed in the PUBLISHER (PB) field (available for records published or updated in Chemical Abstracts after December 26, 1996), unless otherwise indicated in the original publications. The CA Lexicon is the copyrighted intellectual property of the the American Chemical Society and is provided to assist you in searching databases on STN. Any dissemination, distribution, copying, or storing of this information, without the prior written consent of CAS, is strictly prohibited.

FILE COVERS 1907 - 20 Dec 2006 VOL 145 ISS 26 FILE LAST UPDATED: 19 Dec 2006 (20061219/ED)

New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> s 114 and paper 739815 PAPER 52392 PAPERS 769982 PAPER (PAPER OR PAPERS) => d his

L2

L8

(FILE 'HOME' ENTERED AT 18:30:53 ON 20 DEC 2006)

FILE 'REGISTRY' ENTERED AT 18:31:02 ON 20 DEC 2006 L1 STRUCTURE UPLOADED

FILE 'STNGUIDE' ENTERED AT 18:31:28 ON 20 DEC 2006

FILE 'REGISTRY' ENTERED AT 18:32:28 ON 20 DEC 2006

STRUCTURE UPLOADED

L3 8 S L2 SSS SAM

FILE 'STNGUIDE' ENTERED AT 18:33:13 ON 20 DEC 2006

FILE 'REGISTRY' ENTERED AT 18:33:32 ON 20 DEC 2006 L4 698 S L2 SSS FULL

FILE 'HCAPLUS' ENTERED AT 18:33:51 ON 20 DEC 2006 L5 267 S L4

FILE 'STNGUIDE' ENTERED AT 18:33:58 ON 20 DEC 2006

FILE 'REGISTRY' ENTERED AT 18:36:06 ON 20 DEC 2006 L6 STRUCTURE UPLOADED

L7 19 S L6 SSS SAM

FILE 'STNGUIDE' ENTERED AT 18:36:44 ON 20 DEC 2006

FILE 'HCAPLUS' ENTERED AT 18:37:29 ON 20 DEC 2006

0 S L5 AND SACCHARIDE

L9 94657 S POLYSACCHARIDE

L10 5 S L5 AND L9

FILE 'STNGUIDE' ENTERED AT 18:38:44 ON 20 DEC 2006

FILE 'REGISTRY' ENTERED AT 18:40:02 ON 20 DEC 2006

L11 STRUCTURE UPLOADED

L12 19 S L11 SSS SAM

L13 8234 S L11 SSS FULL

FILE 'HCAPLUS' ENTERED AT 18:40:44 ON 20 DEC 2006

L14 1602 S L13

L15 53 S L14 AND L9

L16 20 S L15 AND 1800<=PY<=2002

FILE 'STNGUIDE' ENTERED AT 18:42:17 ON 20 DEC 2006

FILE 'HCAPLUS' ENTERED AT 18:50:35 ON 20 DEC 2006

L17 59 S L14 AND L5

L18 1 S L17 AND L9

FILE 'STNGUIDE' ENTERED AT 18:51:16 ON 20 DEC 2006

FILE 'HCAPLUS' ENTERED AT 18:54:00 ON 20 DEC 2006 E PAPER+ALL/CT

L19 89 S L14 AND PAPER

=> s 119 and 16

822255 16

L20 7 L19 AND 16

=> s 119 and 116

L21 2 L19 AND L16

=> d 121 ti

L21 ANSWER 1 OF 2 HCAPLUS COPYRIGHT 2006 ACS on STN
TI Preparation and potential for application of cationic polysaccharides in cosmetic formulations

=> d 121 ti 2

L21 ANSWER 2 OF 2 HCAPLUS COPYRIGHT 2006 ACS on STN TI Polysaccharide-based sizes for plane structures

=> fil stng

COST IN U.S. DOLLARS

SINCE FILE TOTAL ENTRY SESSION
FULL ESTIMATED COST

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

SINCE FILE TOTAL

ENTRY SESSION
CA SUBSCRIBER PRICE

0.00
-19.50

FILE 'STNGUIDE' ENTERED AT 18:55:11 ON 20 DEC 2006
USE IS SUBJECT TO THE TERMS OF YOUR CUSTOMER AGREEMENT
COPYRIGHT (C) 2006 AMERICAN CHEMICAL SOCIETY, JAPAN SCIENCE
AND TECHNOLOGY CORPORATION, AND FACHINFORMATIONSZENTRUM KARLSRUHE

FILE CONTAINS CURRENT INFORMATION.
LAST RELOADED: Dec 19, 2006 (20061219/UP).

=> fil hcaplus

COST IN U.S. DOLLARS SINCE FILE TOTAL. ENTRY SESSION FULL ESTIMATED COST 0.48 494.25 DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS) SINCE FILE TOTAL ENTRY SESSION CA SUBSCRIBER PRICE 0.00 -19.50

FILE 'HCAPLUS' ENTERED AT 18:59:51 ON 20 DEC 2006
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2006 AMERICAN CHEMICAL SOCIETY (ACS)

Copyright of the articles to which records in this database refer is held by the publishers listed in the PUBLISHER (PB) field (available for records published or updated in Chemical Abstracts after December 26, 1996), unless otherwise indicated in the original publications. The CA Lexicon is the copyrighted intellectual property of the the American Chemical Society and is provided to assist you in searching databases on STN. Any dissemination, distribution, copying, or storing of this information, without the prior written consent of CAS, is strictly prohibited.

FILE COVERS 1907 - 20 Dec 2006 VOL 145 ISS 26 FILE LAST UPDATED: 19 Dec 2006 (20061219/ED)

New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file contains CAS Registry Numbers for easy and accurate

substance identification.

=> S L19 AND 1800<=PY<=2002 22829998 1800<=PY<=2002

L22 56 L19 AND 1800<=PY<=2002

=> d his

L6

(FILE 'HOME' ENTERED AT 18:30:53 ON 20 DEC 2006)

FILE 'REGISTRY' ENTERED AT 18:31:02 ON 20 DEC 2006 L1 STRUCTURE UPLOADED

FILE 'STNGUIDE' ENTERED AT 18:31:28 ON 20 DEC 2006

FILE 'REGISTRY' ENTERED AT 18:32:28 ON 20 DEC 2006
L2 STRUCTURE UPLOADED

L3 8 S L2 SSS SAM

FILE 'STNGUIDE' ENTERED AT 18:33:13 ON 20 DEC 2006

FILE 'REGISTRY' ENTERED AT 18:33:32 ON 20 DEC 2006 L4 698 S L2 SSS FULL

FILE 'HCAPLUS' ENTERED AT 18:33:51 ON 20 DEC 2006 L5 267 S L4

FILE 'STNGUIDE' ENTERED AT 18:33:58 ON 20 DEC 2006

FILE 'REGISTRY' ENTERED AT 18:36:06 ON 20 DEC 2006 STRUCTURE UPLOADED

L7 19 S L6 SSS SAM

FILE 'STNGUIDE' ENTERED AT 18:36:44 ON 20 DEC 2006

FILE 'HCAPLUS' ENTERED AT 18:37:29 ON 20 DEC 2006

L8 0 S L5 AND SACCHARIDE L9 94657 S POLYSACCHARIDE

L10 5 S L5 AND L9

FILE 'STNGUIDE' ENTERED AT 18:38:44 ON 20 DEC 2006

FILE 'REGISTRY' ENTERED AT 18:40:02 ON 20 DEC 2006

L11 STRUCTURE UPLOADED

L12 19 S L11 SSS SAM

L13 8234 S L11 SSS FULL

FILE 'HCAPLUS' ENTERED AT 18:40:44 ON 20 DEC 2006

L14 1602 S L13

L15 53 S L14 AND L9

L16 20 S L15 AND 1800<=PY<=2002

FILE 'STNGUIDE' ENTERED AT 18:42:17 ON 20 DEC 2006

FILE 'HCAPLUS' ENTERED AT 18:50:35 ON 20 DEC 2006

L17 59 S L14 AND L5

L18 1 S L17 AND L9

FILE 'STNGUIDE' ENTERED AT 18:51:16 ON 20 DEC 2006

FILE 'HCAPLUS' ENTERED AT 18:54:00 ON 20 DEC 2006 E PAPER+ALL/CT

L19 89 S L14 AND PAPER

L20 7 S L19 AND 16

```
L21
               2 S L19 AND L16
```

FILE 'STNGUIDE' ENTERED AT 18:55:11 ON 20 DEC 2006

FILE 'HCAPLUS' ENTERED AT 18:59:51 ON 20 DEC 2006 L22 56 S L19 AND 1800<=PY<=2002

=> s 122 and 15

4 L22 AND L5 L23

=> d 123 ibib abs hitstr

L23 ANSWER 1 OF 4 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2002:123096 HCAPLUS

DOCUMENT NUMBER: 136:168929

TITLE: Fluorinated acrylic polymers for oil- and

waterproofing fibrous materials

INVENTOR (S): Tembou N'Zudie, Denis; Legrand, Yvon; Juhue, Didier

PATENT ASSIGNEE(S): ATOFINA, Fr.

PCT Int. Appl., 38 pp. CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: French

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

SOURCE:

```
PATENT NO.
                        KIND
                              DATE
                                         APPLICATION NO.
                                          -----
                        A1 20020214 WO 2001-FR2457 20010726 <--
    WO 2002012361
        W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
            CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
            GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
            LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT,
            RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US,
            UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
        RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
            DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,
            BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
    FR 2812643
                        A1
                              20020208 FR 2000-10389
                                                                20000807 <----
    FR 2812643
                        B1
                              20020913
    AU 2001078570
                              20020218
                                        AU 2001-78570
                        A5
                                                                20010726 <--
                                        EP 2001-956646
    EP 1311567
                              20030521
                        A1
                                                               20010726
            AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
            IE, SI, LT, LV, FI, RO, MK, CY, AL, TR
    JP 2004506073
                       \mathbf{T}
                            20040226
                                          JP 2002-518331
                                                                20010726
    US 2004026053
                        A1
                              20040212
                                          US 2003-343918
                                                                20030730
PRIORITY APPLN. INFO.:
                                          FR 2000-10389
                                                              A 20000807
                                                             W 20010726
                                          WO 2001-FR2457
```

Polymers for the title use are manufactured by polymerization of monomer mixts. containing

(A) \geq 1 CHR1:CR2COA1Rf [R1 = R2 = H or 1 of R1 and R2 = H and the other = C1-4 alkyl, A1 = $(\geq 1 \text{ O-}, \geq 1 \text{ N-}, \text{ or } \geq 1$ S-bridged) hydrocarbylene, Rf = branched or linear C2-20 perfluorinated radical] 5-92, (B) ≥ 1 of CH2CR1CO2CH(CH2N+R22R3 X-)2 (R1 = H or Me, R2, R3 = H, C1-18 alkyl, PhCH2, or hydroxyethyl, X = anion), CH2CR1CO2CH(CH2NR2)2 (R1 = H or Me, R2 = H, C1-18 alkyl, PhCH2, or hydroxyethyl), or CH2CR1CO2CH(CH2N+R22R3 X-)(CH2NR2) (R1 = H or Me, R2 = H, C1-18 alkyl, PhCH2, or hydroxyethyl) 0.1-25, (C) ≥1 anionic or potentially anionic by pH variation 0-20, (D) CH2:CHR (R $\stackrel{=}{=}$ alkanecarbonyloxy, alkoxy, or C1-18 alkyl) 0-25, (E) CH2:CR1CO(OCH2CO)m(OR2)nOR3 [R1 = H or Me, R2 = (\geq 1 halo-substituted) C1-6 alkylene, R3 = (≥1 halo-substituted) C1-32 alkyl or (≥1 halo-substituted) cycloalkyl, m = 0-11] 0-60, (F) ≥1 monomer capable of producing crosslinking after application

Roy P. Issac Page 69 0-10, (G) \geq 1 CH2:CR1CO2A1NR2R3 (R1 = H or C1-4 alkyl, A1 = C1-4 alkyl, R2, R3 = H, C1-18 alkyl, hydroxyethyl, or PhCH2, or R2R3 = ring) 0-25 parts/100 parts monomer. A typical polymer was manufactured by radical-emulsion polymerization of 176.9 parts 63:25:10:2 CH2:CHCO2CH2CH2CBF17-CH2:CHCO2CH2CH2C10F21-CH2:CHCO2CH2CH2C12F25-CH2:CHCO2CH2CH2C14F28 mixture with 2-methoxyethyl acrylate 43.2, N-methylolacrylamide (48% aqueous solution) 25, and CH2:CHCO2CH(CH2N+Me2CH2Ph2 Cl-)2 (75% aqueous solution) 12.8 parts. 396659-80-6P 397870-86-9P

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(fluorinated acrylic polymers for water- and oilproofing fibrous materials)

RN 396659-80-6 HCAPLUS

1,3-Propanediaminium, N,N,N',N'-tetramethyl-2-[(1-oxo-2-propenyl)oxy]-N,N'-bis(phenylmethyl)-, dichloride, polymer with docosyl 2-propenoate, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,12-heneicosafluorododecyl 2-propenoate, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluorodecyl 2-propenoate, N-(1-hydroxy-2,2-dimethoxyethyl)-2-propenamide, N-(hydroxymethyl)-2-propenamide, methyl 2-propenoate, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14,15,15,16,16,16-nonacosafluorohexadecyl 2-propenoate and 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14,14-pentacosafluorotetradecyl 2-propenoate (9CI) (CA INDEX NAME)

CM 1

IT

CN

CRN 352227-25-9 CMF C24 H34 N2 O2 . 2 Cl

●2 Cl-

CM 2

CRN 112642-92-9 CMF C7 H13 N O4

CM 3

CRN 34395-24-9 CMF C17 H7 F25 O2

$$_{\rm F_3C^-}$$
 (CF₂)₁₁-CH₂-CH₂-O-C-CH=CH₂

CM 4

CRN 34362-49-7 CMF C19 H7 F29 O2

CM 5

CRN 27905-45-9 CMF C13 H7 F17 O2

$$\begin{array}{c} \text{O} \\ \parallel \\ \text{F}_3\text{C-- (CF}_2)_7 - \text{CH}_2 - \text{CH}_2 - \text{O-- C-- CH} = \text{CH}_2 \end{array}$$

CM 6

CRN 18299-85-9 CMF C25 H48 O2

$$\begin{array}{c} \text{O} \\ \parallel \\ \text{Me- (CH}_2)_{\,2\,1} - \text{O- C- CH- CH- CH}_2 \end{array}$$

CM 7

CRN 17741-60-5 CMF C15 H7 F21 O2

$$F_3C-(CF_2)_9-CH_2-CH_2-O-C-CH$$

CM 8

CRN 924-42-5 CMF C4 H7 N O2

CM 9

CRN 96-33-3 CMF C4 H6 O2

RN 397870-86-9 HCAPLUS

CN 1,3-Propanediaminium, N,N,N',N'-tetramethyl-2-[(1-oxo-2-propenyl)oxy]-N,N'bis(phenylmethyl)-, dichloride, polymer with 3,3,4,4,5,5,6,6,7,7,8,8,9,9,1
0,10,11,11,12,12,12-heneicosafluorododecyl 2-propenoate,
3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluorodecyl 2-propenoate,
N-(hydroxymethyl)-2-propenamide, 2-methoxyethyl 2-propenoate,
3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14,15,15,16,16,16nonacosafluorohexadecyl 2-propenoate and 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10
,11,11,12,12,13,13,14,14,14-pentacosafluorotetradecyl 2-propenoate (9CI)
(CA INDEX NAME)

CM 1

CRN 352227-25-9 CMF C24 H34 N2 O2 . 2 Cl

●2 Cl~

CM 2

CRN 34395-24-9 CMF C17 H7 F25 O2

$$F_3C-(CF_2)_{11}-CH_2-CH_2-O-C$$
 CH=CH₂

CM 3

10/676,176>20/12/2006

CRN 34362-49-7 CMF C19 H7 F29 O2

$$_{\rm F_3C^-\ (CF_2)_{13}^-\ CH_2^-\ CH_2^-\ O^-\ C^-\ CH^==\ CH_2}^{\rm O}$$

CM 4

CRN 27905-45-9 CMF C13 H7 F17 O2

$$_{\rm F_3C^-}^{\rm O}$$
 (CF₂) $_{\rm 7^-}^{\rm CH_2^-}$ CH₂- O- C- CH== CH₂

CM 5

CRN 17741-60-5 CMF C15 H7 F21 O2

$$F_3C-(CF_2)_9-CH_2-CH_2-O-C-CH-CH_2$$

CM 6

CRN 3121-61-7 CMF C6 H10 O3

CM 7

CRN 924-42-5 CMF C4 H7 N O2

$$| O |$$
 $| HO - CH_2 - NH - C - CH - CH_2 - CH_2 - CH_2 - CH_3 -$

REFERENCE COUNT:

THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> d 123 ibib abs hitstr 2-4

L23 ANSWER 2 OF 4 HCAPLUS COPYRIGHT 2006 ACS on STN

3

ACCESSION NUMBER: 2002:119303 HCAPLUS

DOCUMENT NUMBER: 136:167813

TITLE: Water-soluble (co)polymers with quaternary ammonium

groups, their preparation and their use

INVENTOR(S): Tembou, Nzudie Denis; Legrand, Yvon

PATENT ASSIGNEE(S): ATOFINA, Fr.

SOURCE: Eur. Pat. Appl., 15 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent LANGUAGE: French

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

				APPLICATION NO.	
	EP 1179552	A1 20	020213	EP 2001-402069 , GR, IT, LI, LU, NL, S	20010731 <
	IE, SI, LT,	LV, FI, R	20		
	FR 2812644			FR 2000-10388	20000807 <
	FR 2812644		020913		
	CA 2354831	A1 20		CA 2001-2354831	20010807 <
	CN 1337414			CN 2001-133139	
	US 2002035198			US 2001-922944	
				JP 2001-239620	
	BR 2001003238	A 20		BR 2001-3238	
PRIO	RITY APPLN. INFO.:			FR 2000-10388 A	
AB					ed by polymerization of
				R1CONR2R3 [R1 = H or Me	
				5-alkoxy-C1-5-alkyl] 0-:	
	≥1 CH2:CR1CO2CH(CH2	N+R22R3 X-) 2 (R1 = H	H or Me , $R2$, $R3 = H$, $C1$	-18
	alkyl, PhCH2, or hy	droxyethyl	X = anic	on) or CH2:CR1CO2CH(CH2	N+R22R3
	X-) (NR22) (R1 = H o	r Me, R2,	R3 = H, C1	l-18 alkyl, PhCH2, or h	ydroxyethyl,
	X = anion) 0.2-100,	(C) ≥1 wa	ter-solubl	le monomer potentially a	anionic
	by variation of the	pH 0-60,	(D) ≥1 CH2	2:CR1COA1B1NR2R3R4 (R1	= H or
	Me, $R2$, $R3 = Me$ or	C2-16 alky	1, $R4 = H$,	Me, or $C2-16$, $A1 = 0$	or NH, B1 =
	CH2CH2, CH2CH2CH2,	or CH2CH(O	H) CH2, $X =$	= anion) 0-10, (E) ≥1	
	hydrophobic monomer	0-10, and	l (F) ≥1 wa	ater-soluble monomer other	her than
	(A), (B), (C), or (D) 0-30 pa	rts/100 pa	arts monomer.	
IT	352230-45-6P 396094	-98-7P	· -		
	RL: IMF (Industrial	manufactu	re); TEM ((Technical or engineered	d material
	use); PREP (Prepara	tion); USE	S (Uses)	_	
	(water-soluble a	crylic (co)polymers	with quaternary ammonia	um groups for
	flocculants)	-		-	

1,3-Propanediaminium, N,N,N',N'-tetramethyl-2-[(1-oxo-2-propenyl)oxy]-N,N'-

bis (phenylmethyl) -, dichloride, polymer with 2-propenamide and

N, N, N-trimethyl-2-[(1-oxo-2-propenyl)oxy]ethanaminium chloride (9CI)

CM 1

INDEX NAME)

RN

CN

CRN 352227-25-9

352230-45-6 HCAPLUS

CMF C24 H34 N2 O2 . 2 Cl

Roy P. Issac Page 74

●2 Cl-

CM 2

CRN 44992-01-0 CMF C8 H16 N O2 . Cl

● c1 -

CM 3

CRN 79-06-1 CMF C3 H5 N O

$$\begin{array}{c|c}
 & O \\
 & || \\
 & H_2N-C-CH=CH_2
\end{array}$$

CN

RN 396094-98-7 HCAPLUS

1,3-Propanediaminium, N,N,N',N'-tetramethyl-2-[(1-oxo-2-propenyl)oxy]-N,N'-bis(phenylmethyl)-, dichloride, polymer with N,N,N-trimethyl-2-[(1-oxo-2-propenyl)oxy]ethanaminium chloride (9CI) (CA INDEX NAME)

CM 1

CRN 352227-25-9 CMF C24 H34 N2 O2 . 2 Cl

●2 C1-

CM 2

CRN 44992-01-0 CMF C8 H16 N O2 . Cl

$$Me_3+N-CH_2-CH_2-O-C-CH$$
 CH CH2

● c1-

REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L23 ANSWER 3 OF 4 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

2001:565118 HCAPLUS

DOCUMENT NUMBER:

135:137860

TITLE:

Saline aqueous dispersions of water soluble

(co)polymers based on cationic monomers, method for

making same and uses thereof

INVENTOR(S): Riondel, Alain; Tembou, N'zudie Denis; Vanhoye, Didier

PATENT ASSIGNEE(S): ATOFINA, Fr.

SOURCE:

PCT Int. Appl., 30 pp.

CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

French

1

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT	KIN	IND DATE				APPL	ICAT	ION 1	DATE							
					-											
WO 2001055226				A2		2001	0802		WO 2	001-	FR18		20010119 <			
WO 2001	.0552	26		А3		2002	0131									
W:	ΑE,	AG,	AL,	AM,	AT,	AU,	ΑZ,	BA,	BB,	BG,	BR,	BY,	ΒZ,	CA,	CH,	CN,
	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EE,	ES,	FI,	GB,	GD,	GE,	GH,	GM,	HR,
	HU,	ID,	IL,	IN,	IS,	JΡ,	KE,	KG,	KP,	KR,	KZ,	LC,	LK,	LR,	LS,	LT,
	LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	MZ,	NO,	NZ,	PL,	PT,	RO,	RU,
	SD,	SE,	SG,	SI,	SK,	SL,	TJ,	TM,	TR,	TT,	TZ,	UA,	UG,	US,	UZ,	VN,
	YU,	ZA,	ZW,	AM,	AZ,	BY,	KG,	ΚZ,	MD,	RU,	ТJ,	TM				
RW:	GH,	GM,	KE,	LS,	MW,	MZ,	SD,	SL,	SZ,	TZ,	ŪĠ,	ZW,	AT,	BE,	CH,	CY,
	DE,	DK,	ES,	FI,	FR,	GB,	GR,	ΙE,	IT,	LU,	MC,	NL,	PT,	SE,	TR,	BF,
	ВJ,	CF,	CG,	CI,	CM,	GA,	GN,	GW,	ML,	MR,	NE,	SN,	TD,	TG		
FR 2804	123		A1		2001	0727		FR 2	000-	832			20	0000	124 <	

```
FR 2804123
                                20020222
                          B1
     AU 2001035563
                          Α5
                                             AU 2001-35563
                                20010807
                                                                     20010119 <--
     EP 1252208
                          A2
                                             EP 2001-907648
                                 20021030
                                                                     20010119 <--
     EP 1252208
                          В1
                                20040107
         R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, SI, LT, LV, FI, RO, MK, CY, AL, TR
                                             JP 2001-561073
     JP 2003523463
                          Т
                                20030805
                                                                     20010119
     US 2003171489
                                             US 2002-181818
                          Α1
                                20030911
                                                                     20021120
PRIORITY APPLN. INFO.:
                                             FR 2000-832
                                                                    20000124
                                             WO 2001-FR184
                                                                 W 20010119
```

AB Saline aqueous dispersions of water-soluble polymers containing polymeric dispersants are manufactured by radical-dispersion polymerization of monomer mixts. containing 2-100 mol (based on 100 mol monomer) CH2:CR1CO2CH(CH2NR22)2 (R1 = H or Me, R2 = Me, Et, Pr, or Bu) quaternized on ≥1 N so that the 4th group is alkyl or PhCH2 and the anion is halide or MeOSO3-. A typical dispersion was manufactured by radical-dispersion polymerization of 27.26 parts 75% aqueous CH2:CHCO2CH(CH2N+Me2CH2Ph)2 2Cl- solution, 48.46 parts 50% aqueous acrylamide solution, and 19.16 parts 80% aqueous acryloyloxyethyltrimethylammonium chloride (I)solution in the presence of (NH4)2SO4 and 76.25:3.84:0.67:19.23 I-methacrylic acid-Sipomer SEM-styrene copolymer dispersant.

IT 352227-25-9P

RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)

(monomer; saline aqueous dispersions of water-soluble polymers based on cationic monomers prepared in presence of polymeric dispersants)

RN 352227-25-9 HCAPLUS

CN 1,3-Propanediaminium, N,N,N',N'-tetramethyl-2-[(1-oxo-2-propenyl)oxy]-N,N'-bis(phenylmethyl)-, dichloride (9CI) (CA INDEX NAME)

●2 Cl-

IT 352230-45-6P

RL: IMF (Industrial manufacture); PREP (Preparation)
(saline aqueous dispersions of water-soluble polymers based on cationic monomers prepared in presence of polymeric dispersants)

RN 352230-45-6 HCAPLUS

CN 1,3-Propanediaminium, N,N,N',N'-tetramethyl-2-[(1-oxo-2-propenyl)oxy]-N,N'-bis(phenylmethyl)-, dichloride, polymer with 2-propenamide and N,N,N-trimethyl-2-[(1-oxo-2-propenyl)oxy]ethanaminium chloride (9CI) (CA INDEX NAME)

CM 1

CRN 352227-25-9 CMF C24 H34 N2 O2 . 2 Cl

●2 Cl-

CM

CRN 44992-01-0 CMF C8 H16 N O2 . Cl

$$Me_3+N-CH_2-CH_2-O-C-CH$$

C1 -

CM 3

CRN 79-06-1 CMF C3 H5 N O

L23 ANSWER 4 OF 4 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

2001:565116 HCAPLUS

DOCUMENT NUMBER:

135:137858

TITLE:

Water soluble saline aqueous dispersions of copolymers based on cationic monomers, method for making same and

uses thereof

INVENTOR(S):

Riondel, Alain; Tembou N'Zudie, Denis; Legrand, Yvon;

PATENT ASSIGNEE(S):

SOURCE:

Vanhoye, Didier ATOFINA, Fr. PCT Int. Appl., 36 pp.

CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

French

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-			
WO 2001055224	A2	20010802	WO 2001-FR181	20010119 <

```
WO 2001055224
                           A3
                                  20020117
         W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
              CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR,
              HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU,
              SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN,
              YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
              DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,
              BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
     FR 2804124
                           A1
                                  20010727
                                               FR 2000-835
                                                                       20000124 <--
     FR 2804124
                           В1
                                  20020308
     AU 2001035560
                                               AU 2001-35560
                           A5
                                  20010807
                                                                       20010119 <--
     EP 1252206
                                               EP 2001-907645
                           A2
                                  20021030
                                                                       20010119 <--
     EP 1252206
                           В1
                                  20040107
             AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR
                                               JP 2001-561071
     JP 2004501208
                           \mathbf{T}
                                  20040115
                                                                       20010119
     US 2003166771
                                               US 2002-181974
                           Α1
                                  20030904
                                                                       20021105
PRIORITY APPLN. INFO.:
                                               FR 2000-835
                                                                    A 20000124
                                               WO 2001-FR181
                                                                    W 20010119
AB
     Saline aqueous dispersions of water-soluble polymers containing polymeric dispersants
     are manufactured by radical-dispersion polymerization of monomer mixts. containing 0.5-65
     mol (based on 100 mol monomer) CH2:CR1CO2CH(CH2NR22)2 (R1 = H or Me, R2 =
     Me, Et, Pr, or Bu) quaternized on ≥1 N so that the 4th group is
     alkyl or PhCH2 and the anion is halide or MeOSO3- and 0.5-95 mol (based on
     100 mol monomer) CH2CR1COA1B1NR2R3R4 X- [R1 = H or Me, A1 = O or NH, B1 =
     CH2CH2, CH2CH2CH2, or CH2CH(OH)CH2, R2 = (CH2)mMe or PhMe, m = 3-9, R3, R4
     = Me or Et, X = anion] and(or) diethylaminoethyl (meth)acrylate
     quaternized by Me2SO4. A typical dispersion was manufactured by
     radical-dispersion polymerization of 20.43 parts 73.5% aqueous
     CH2:CHCO2CH(CH2N+Me2CH2Ph)2 2Cl- solution, 87.5 parts 50% aqueous acrylamide
     solution, 60.7 parts 80% aqueous acryloyloxyethyltrimethylammonium chloride
     (I) solution, and 15.85 parts 80% aqueous acryloyloxyethylbenzyldimethylammonium
     chloride solution in the presence of (NH4)2SO4 and 76.25:3.84:0.67:19.23
     I-methacrylic acid-Sipomer SEM-styrene copolymer dispersant.
     352227-25-9P
IT
     RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT
     (Reactant or reagent)
         (monomer; saline aqueous dispersions of water-soluble polymers based on
        cationic monomers prepared in presence of polymeric dispersants)
RN
     352227-25-9 HCAPLUS
```

CN 1,3-Propanediaminium, N,N,N',N'-tetramethyl-2-[(1-oxo-2-propenyl)oxy]-N,N'-bis(phenylmethyl)-, dichloride (9CI) (CA INDEX NAME)

@2 C1-

=> fil stng
COST IN U.S. DOLLARS

SINCE FILE TOTAL

ENTRY SESSION FULL ESTIMATED COST 28.03 522.28

SINCE FILE TOTAL ENTRY SESSION DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

-22.50 CA SUBSCRIBER PRICE -3.00

FILE 'STNGUIDE' ENTERED AT 19:01:44 ON 20 DEC 2006 USE IS SUBJECT TO THE TERMS OF YOUR CUSTOMER AGREEMENT COPYRIGHT (C) 2006 AMERICAN CHEMICAL SOCIETY, JAPAN SCIENCE AND TECHNOLOGY CORPORATION, AND FACHINFORMATIONSZENTRUM KARLSRUHE

FILE CONTAINS CURRENT INFORMATION. LAST RELOADED: Dec 19, 2006 (20061219/UP).

=> d his

T.4

L11

(FILE 'HOME' ENTERED AT 18:30:53 ON 20 DEC 2006)

FILE 'REGISTRY' ENTERED AT 18:31:02 ON 20 DEC 2006 STRUCTURE UPLOADED L1

FILE 'STNGUIDE' ENTERED AT 18:31:28 ON 20 DEC 2006

FILE 'REGISTRY' ENTERED AT 18:32:28 ON 20 DEC 2006

STRUCTURE UPLOADED L2

L3 8 S L2 SSS SAM

FILE 'STNGUIDE' ENTERED AT 18:33:13 ON 20 DEC 2006

FILE 'REGISTRY' ENTERED AT 18:33:32 ON 20 DEC 2006 698 S L2 SSS FULL

FILE 'HCAPLUS' ENTERED AT 18:33:51 ON 20 DEC 2006 1.5 267 S L4

FILE 'STNGUIDE' ENTERED AT 18:33:58 ON 20 DEC 2006

FILE 'REGISTRY' ENTERED AT 18:36:06 ON 20 DEC 2006 STRUCTURE UPLOADED

1.6

Ь7 19 S L6 SSS SAM

FILE 'STNGUIDE' ENTERED AT 18:36:44 ON 20 DEC 2006

FILE 'HCAPLUS' ENTERED AT 18:37:29 ON 20 DEC 2006

0 S L5 AND SACCHARIDE L8

L9 94657 S POLYSACCHARIDE

L10 5 S L5 AND L9

FILE 'STNGUIDE' ENTERED AT 18:38:44 ON 20 DEC 2006

FILE 'REGISTRY' ENTERED AT 18:40:02 ON 20 DEC 2006

STRUCTURE UPLOADED

L12 19 S L11 SSS SAM

8234 S L11 SSS FULL L13

FILE 'HCAPLUS' ENTERED AT 18:40:44 ON 20 DEC 2006

1602 S L13 L14

L15 53 S L14 AND L9

20 S L15 AND 1800<=PY<=2002 L16

FILE 'STNGUIDE' ENTERED AT 18:42:17 ON 20 DEC 2006

FILE 'HCAPLUS' ENTERED AT 18:50:35 ON 20 DEC 2006

L17 59 S L14 AND L5 L18 1 S L17 AND L9

FILE 'STNGUIDE' ENTERED AT 18:51:16 ON 20 DEC 2006

FILE 'HCAPLUS' ENTERED AT 18:54:00 ON 20 DEC 2006

E PAPER+ALL/CT

L19 89 S L14 AND PAPER L20 7 S L19 AND 16 L21 2 S L19 AND L16

FILE 'STNGUIDE' ENTERED AT 18:55:11 ON 20 DEC 2006

FILE 'HCAPLUS' ENTERED AT 18:59:51 ON 20 DEC 2006

L22 56 S L19 AND 1800<=PY<=2002

L23 4 S L22 AND L5

FILE 'STNGUIDE' ENTERED AT 19:01:44 ON 20 DEC 2006

=> =>

=> fil stnguide

COST IN U.S. DOLLARS SINCE FILE TOTAL ENTRY SESSION

FULL ESTIMATED COST 4.80 527.08

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS) SINCE FILE TOTAL ENTRY SESSION

CA SUBSCRIBER PRICE 0.00 -22.50

FILE 'STNGUIDE' ENTERED AT 19:49:46 ON 20 DEC 2006
USE IS SUBJECT TO THE TERMS OF YOUR CUSTOMER AGREEMENT
COPYRIGHT (C) 2006 AMERICAN CHEMICAL SOCIETY, JAPAN SCIENCE
AND TECHNOLOGY CORPORATION, AND FACHINFORMATIONSZENTRUM KARLSRUHE

FILE CONTAINS CURRENT INFORMATION.
LAST RELOADED: Dec 19, 2006 (20061219/UP).

=> fil hcaplus

COST IN U.S. DOLLARS
SINCE FILE TOTAL
ENTRY SESSION
FULL ESTIMATED COST
0.24 527.32

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

SINCE FILE TOTAL
ENTRY SESSION
CA SUBSCRIBER PRICE

0.00 -22.50

FILE 'HCAPLUS' ENTERED AT 19:51:58 ON 20 DEC 2006
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2006 AMERICAN CHEMICAL SOCIETY (ACS)

Copyright of the articles to which records in this database refer is held by the publishers listed in the PUBLISHER (PB) field (available for records published or updated in Chemical Abstracts after December 26, 1996), unless otherwise indicated in the original publications. The CA Lexicon is the copyrighted intellectual property of the the American Chemical Society and is provided to assist you in searching databases on STN. Any dissemination, distribution, copying, or storing of this information, without the prior written consent of CAS, is strictly prohibited.

FILE COVERS 1907 - 20 Dec 2006 VOL 145 ISS 26

FILE LAST UPDATED: 19 Dec 2006 (20061219/ED)

New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> s 115 not 116

L24 33 L15 NOT L16

=> d 124 ibib abs hitstr

L24 ANSWER 1 OF 33 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2006:485572 HCAPLUS

DOCUMENT NUMBER: 144:490667

TITLE: Cationically modified galactomannan-containing

polysaccharides and cosmetic compositions

containing them

INVENTOR(S): Takeda, Hiromitsu; Mori, Yoshihiko
PATENT ASSIGNEE(S): Toho Chemical Industry Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 35 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO. KIND DATE APPLICATION NO. DATE

JP 2006131862 A 20060525 JP 2004-368566 20041220
PRIORITY APPLN. INFO.: JP 2004-293088 A 20041005

The polysaccharides are manufactured by purifying the crude polysaccharides derived from fenugreek seed endosperm of legume family and having galactomannan content ≥85%, with mannose units (M) on main chain and galactose units (G) side chain at a M/G ratio of 1:1, then cationizing the polysaccharides using specific quaternary ammonium group-introducing compds. The cationic derivs. are useful for hair and body care products such as shampoos and rinse compns. with good conditioning property, feel and softness. Thus, cationizing a fenugreek gum (88% galactomannan content) with glycidyltrimethylammonium chloride gave a cationic product.

IT 742071-26-7

RL: RCT (Reactant); RACT (Reactant or reagent)
(manufacture of cationically modified galactomannan-containing
polysaccharides and cosmetic compns. containing them)

RN 742071-26-7 HCAPLUS

CN Fenugreek gum, 2-hydroxy-3-(trimethylammonio)propyl ether, chloride (9CI) (CA INDEX NAME)

CM 1

CRN 742071-25-6

CMF C6 H16 N O2 . x Unspecified

CM 2

CRN 73613-05-5 CMF Unspecified

CCI MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 3

Roy P. Issac Page 82

CRN 44814-66-6 CMF C6 H16 N O2

OH HO-CH2-CH-CH2-N+Me3

=> d l24 ibib abs hitstr 2-10

L24 ANSWER 2 OF 33 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

2006:436951 HCAPLUS

DOCUMENT NUMBER:

144:433765

TITLE:

Polysaccharide derivatives, their

manufacture, their uses as thickeners and emulsifiers,

and water-thinned compositions containing them

INVENTOR(S):

Ihara, Takeshi; Nishioka, Toru

PATENT ASSIGNEE(S):

Kao Corp., Japan

SOURCE:

Jpn. Kokai Tokkyo Koho, 21 pp.

CODEN: JKXXAF

DOCUMENT TYPE:

Patent

LANGUAGE:

Japanese

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO. KIND DATE APPLICATION NO. ----JP 2006117746 Α 20060511 JP 2004-305312 20041020 PRIORITY APPLN. INFO.: JP 2004-305312

The invention relates to polysaccharide derivs. having H of OH at least partially substituted with E1(OA)nE2R [(A); E1 = OH- or oxo group-(un)substituted C1-6 linear or branched saturated hydrocarbylene; n = 5-30; A = C1-6 linear or branched saturated hydrocarbylene; E2 = ether bond, OCO, CO2; R = steroid structure-having hydrocarbyl; H of OH of (A) may be further substituted with (A)]. Thus, an water-thinned dispersion containing 0.5% hydroxyethyl cellulose (Natrozol 250G) substituted with an ethylene oxide-terminated polyoxyethylene cholesteryl ether and 7.5% silicone oil (SH 200) was stored at 40° for 1 mo to show high emulsion stability. A shampoo containing the ethoxylated cellulose showed good formability and detergency.

IT 888701-07-3P

RL: COS (Cosmetic use); IMF (Industrial manufacture); MOA (Modifier or additive use); TEM (Technical or engineered material use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(ethoxylated cholesteryl cellulose for thickeners, emulsifiers, shampoos, soaps, fabric softeners, and detergents)

RN 888701-07-3 HCAPLUS

CN Cellulose, 2-hydroxyethyl ether, polymer with oxirane,

(3β)-cholest-5-en-3-yl 2-hydroxy-3-(trimethylammonio)propyl ether, chloride (9CI) (CA INDEX NAME)

CM 1

CRN 888701-06-2

C27 H46 O . x C6 H16 N O2 . x (C2 H6 O2 . C2 H4 O . x Unspecified)x

CM

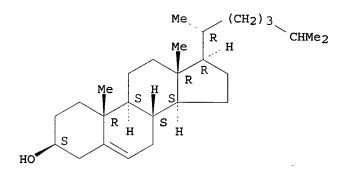
CRN 44814-66-6 CMF C6 H16 N O2 OH

HO--CH2-CH CH2-N+Me3

CM 3

CRN 57-88-5 CMF C27 H46 O

Absolute stereochemistry.



CM 4

CRN 149829-07-2

CMF (C2 H6 O2 . C2 H4 O . x Unspecified)x

CCI PMS

CM 5

CRN 75-21-8

CMF C2 H4 O

 $riangle^{\circ}$

CM 6

CRN 9004-62-0

CMF C2 H6 O2 . x Unspecified

CM 7

CRN 9004-34-6 CMF Unspecified

CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 8

CRN 107-21-1 CMF C2 H6 O2 HO-CH2-CH2-OH

L24 ANSWER 3 OF 33 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

2006:405420 HCAPLUS

DOCUMENT NUMBER:

145:187108

TITLE:

Highly efficient immobilization of

endo-1,3- β -D-glucanases (laminarinases) from marine mollusks in novel hybrid polysaccharide -silica nanocomposites with regulated composition Shchipunov, Yu. A.; Burtseva, Yu. V.; Karpenko, T.

AUTHOR(S):

Yu.; Shevchenko, N. M.; Zvyagintseva, T. N.

CORPORATE SOURCE:

Institute of Chemistry, Far East Department, Russian Academy of Sciences, Vladivostok, 690022, Russia

SOURCE:

Journal of Molecular Catalysis B: Enzymatic (2006),

40(1-2), 16-23

CODEN: JMCEF8; ISSN: 1381-1177

PUBLISHER:

Elsevier B.V. Journal

DOCUMENT TYPE: LANGUAGE:

English

A novel immobilizing method developed previously by ourselves was successfully used to entrap endo-1,3-β-D-glucanases (laminarinases) separated from marine bivalvia Spisula sacchalinensis (glucanase LIV) and Chlamys albidus (glucanase Lo) into hybrid polysaccharide-silica nanocomposite materials by means of the sol-gel processing. Its main advantage over the current immobilizing procedures is that the entrapment conditions are dictated by the enzymes, but not the processing. It was shown that both the $1,3-\beta-D$ -glucanases retained or even had sometimes an increased activity after the immobilization. At the same time, their characteristics (optimal pH, temperature and ionic strength) noticeably were not changed. They provided a depth of hydrolysis of laminaran comparable with that caused by free enzymes in solns. Furthermore, glucanase Lo retained its glucanosyl transferase activity, affording an enzymic synthesis of biol. active 1,3;1,6-β-D-glucan, called translam, from the initially inactive laminaran. It was also demonstrated that the laminarinase entrapment into the hybrid nanocomposites led to a prominent increase of thermal and long-term stability that was particular striking in a case of such a labile enzyme as the glucanase Lo. By varying the nanomaterial composition, its influence on the glucanase activity was found that differed for the studied enzymes.

IT 902451-55-2P

> RL: BUU (Biological use, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)

(highly efficient immobilization of endo-1,3-β-D-glucanases (laminarinases) from marine mollusks in novel hybrid

polysaccharide-silica nanocomposites with regulated composition)

902451-55-2 HCAPLUS RN

Cellulose, 2-hydroxy-3-(trimethylammonio)propyl ether, chloride, polymer with silicic acid (H4SiO4) tetrakis(2-hydroxyethyl) ester (9CI) (CA INDEX NAME)

CM 1

CN

CRN 17622-94-5 CMF C8 H20 O8 Si

$$\begin{array}{c|c} & \text{O-CH}_2\text{-CH}_2\text{-OH} \\ \text{HO-CH}_2\text{-CH}_2\text{-O-Si-O-CH}_2\text{-CH}_2\text{-OH} \\ & \text{O-CH}_2\text{-CH}_2\text{-OH} \end{array}$$

CM 2

CRN 52350-16-0

CMF C6 H16 N O2 . x Cl . x Unspecified

CM 3

CRN 60650-44-4

CMF C6 H16 N O2 . x Unspecified

CM 4

CRN 44814-66-6 CMF C6 H16 N O2

 $\begin{array}{c} \text{OH} \\ | \\ \text{HO- CH}_2\text{-- CH- CH}_2\text{-- N+Me}_3 \end{array}$

CM 5

CRN 9004-34-6 CMF Unspecified CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

REFERENCE COUNT: 38 THERE ARE 38 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L24 ANSWER 4 OF 33 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

2006:339415 HCAPLUS

DOCUMENT NUMBER:

144:376045

TITLE:

Soybean polysaccharides having quaternary

ammonium groups and cosmetics containing them

KIND DATE APPLICATION NO. DATE

INVENTOR(S):

Yoshijima, Hiroshi

cationic polysaccharides with amount of cationic charge 0.73

PATENT ASSIGNEE(S):

Toho Chemical Industry Co., Ltd., Japan

SOURCE:

Jpn. Kokai Tokkyo Koho, 42 pp.

CODEN: JKXXAF

DOCUMENT TYPE:

Patent

LANGUAGE:

Japanese

_ _ _ _

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.

JP 2006097010 PRIORITY APPLN. INFO.:	A 20060413	JP 2005-252741 JP 2004-253490	20050831 A 20040831
AB The polysaccharide the OH groups with = C1-24 alkyl, alk residue of poly(C2 from the quaternar claimed are cosmet polysaccharides,. skin, conditioning	o (R40) nCH2CH(OH) Clenyl; X- = anion; notes a likylene oxide); y ammonium cation-cics, es. hair preprocess a likylene fect, salt resistence.	JP 2004-253490 d by substituting a part of the part of	part of 2 = C1-3 alkyl; R3 -30, then (R4O)n = of charges derived 1-3.0 meq/g. Also cationic soybean o hair and hair-setting
		NaOH solution, NaCl ide at 50° for 3 h to	, and Me2CHOH, was treated o give

Roy P. Issac

meq/g. Hair treated with a shampoo containing the cationic soybean polysaccharide had improved softness.

IT 217327-30-5DP, 3-halo derivs., reaction products with soybean polysaccharides

RL: COS (Cosmetic use); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of soybean polysaccharides having quaternary ammonium groups and cosmetics containing them with good conditioning effect, hair-setting property, salt resistance, etc.)

217327-30-5 HCAPLUS RN

1-Dodecanaminium, N-(2-hydroxypropyl)-N,N-dimethyl-, chloride (9CI) CN

$$\begin{array}{c|c} \text{OH} & \text{Me} \\ \mid & \mid \\ \text{Me--CH--CH}_2 - \text{N} \xrightarrow{+} (\text{CH}_2)_{11} - \text{Me} \\ \mid & \mid \\ \text{Me} \end{array}$$

● cl-

L24 ANSWER 5 OF 33 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2006:317086 HCAPLUS

DOCUMENT NUMBER: 144:376058

TITLE: High ds cationic polygalactomannan for skin care

products

INVENTOR(S): Modi, Jashawant, J.

PATENT ASSIGNEE(S): Hercules Incorporated, USA

SOURCE: PCT Int. Appl., 66 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

	PATENT NO.						D -	DATE		APPLICATION NO.						DATE			
	WO 2006036510														20050909				
		W:	ΑE,	AG,	AL,	AM,	ΑT,	AU,	ΑZ,	BA,	BB,	BG,	BR,	BW,	BY,	ΒZ,	CA,	CH,	
			-	-	-		-	-	-	-	-	-	-					GD,	
			GE,	GH,	GM,	HR,	HU,	ID,	IL,	IN,	ıs,	JP,	KE,	KG,	KM,	KΡ,	KR,	KZ,	
					•	•		LU,		•		•			•		•	•	
						-		PG,	-		-	-			-		-		
						TJ,	TM,	TN,	TR,	TT,	TZ,	UA,	ŪĠ,	US,	UZ,	VC,	VN,	YU,	
			•	ZM,															
		RW:						CZ,							-				
						-		MC,	•		•		-			-		-	
					-	-		GN,		-	-					-		-	
				•	-	-		NA,	SD,	SL,	SZ,	TZ,	UG,	ZM,	ZW,	AM,	AZ,	BY,	
	110	2006				RU,			0406	,		۰	2225	. -		2	0050	000	
חדת		2006				AI								_			0050		
		APP																924 ·	/ L\
AB					-			_										ctant,	(D)
		leas							-	-							-	-	ionia
					_			_										he cat 5-3.0,	
		iymer																	
																		otecti	on
		stur																OCCCCI	J11,
		Locur	T ~ T11	J, L		·-5,	COM	1010	9	,	- u.u.		Juli.	LCL,	Cillo.		ııcy,		

depositing, and antiwrinkling the skin. A hand and body lotion contained Natrosol plus 0.50, cationic guar 0.25, glycerin 2.00, glycol stearate 2.75, stearic acid 2.50, mineral oil 2.00, acetylated lanolin 0.50, cetyl alc. 0.25, triethanolamine 0.50, propylene glycol and diazolidinyl urea and Me paraben and Pr paraben 0.75, and water 98%.

IT 622850-21-9

RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses) (high-d. cationic polygalactomannan for skin care products)

RN 622850-21-9 HCAPLUS

CN 1-Propanaminium, 3-chloro-N-ethyl-2-hydroxy-N,N-dimethyl-, chloride (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} \text{OH} & \text{Me} \\ | & | \\ \text{ClCH}_2 - \text{CH} - \text{CH}_2 - \text{N} \stackrel{+}{\longrightarrow} \text{Et} \\ | & \\ \text{Me} \end{array}$$

• c1 -

REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L24 ANSWER 6 OF 33 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

2006:194008 HCAPLUS

DOCUMENT NUMBER:

144:280046

TITLE:

Reduced odor in low molecular weight cationic

polygalactomannan

INVENTOR (S):

Bejger, Thomas P.; Erazo-Majewicz, Paquita; Hopkins,

Daniel L.; Kostas, John N.; Kuo, Pong-Kuen P.; Modi,

Jashawant J.; Xu, Zu-Feng

PATENT ASSIGNEE(S):

USA

1

SOURCE:

U.S. Pat. Appl. Publ., 16 pp.

CODEN: USXXCO

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT		KIND		DATE		APPLICATION NO.						DATE				
US 200		A1	_	2006	0302	US 2005-202469										
WO 200	60261	13		A1		20060309		1	WO 2005-US28608					20050812		
W:	ΑE,	AG,	AL,	AM,	AT,	AU,	ΑZ,	BA,	BB,	BG,	BR,	BW,	BY,	ΒZ,	CA,	CH,
	CN,	CO,	CR,	CŪ,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	EG,	ES,	FI,	GB,	GD,
	GE,	GH,	GM,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	ΚE,	KG,	KM,	ΚP,	KR,	ΚZ,
	LC,	LK,	LR,	LS,	LT,	LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	MZ,	NA,
	NG,	NI,	NO,	NZ,	OM,	PG,	PH,	PL,	PT,	RO,	RU,	SC,	SD,	SE,	SG,	SK,
	SL,	SM,	SY,	TJ,	TM,	TN,	TR,	TT,	TZ,	UA,	UG,	US,	UΖ,	VC,	VN,	YU,
	ZA,	ZM,	ZW													
RW	: AT,	BE,	BG,	CH,	CY,	CZ,	DE,	DK,	EE,	ES,	FI,	FR,	GB,	GR,	HU,	IE,
	IS,	IT,	LT,	LU,	LV,	MC,	NL,	PL,	PT,	RO,	SE,	SI,	SK,	TR,	BF,	ВJ,
	CF,	CG,	CI,	CM,	GA,	GN,	GQ,	GW,	ML,	MR,	NE,	SN,	TD,	TG,	BW,	GH,
	GM,	KE,	LS,	MW,	MZ,	NA,	SD,	SL,	SZ,	TZ,	UG,	ZM,	ZW,	AM,	ΑZ,	BY,
	KG,	ΚZ,	MD,	RU,	ТJ,	TM										
US 200	60469	43		A1		2006	0302	1	US 2	005-	2110	01		20	0050	824
WO 200	60267	50		A1		2006	0309	1	WO 2	005-1	US31:	291		20050830		
W:	ΑE,	AG,	AL,	AM,	AT,	AU,	ΑZ,	BA,	BB,	BG,	BR,	BW,	BY,	ΒZ,	CA,	CH,
	CN,	co,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	EG,	ES,	FI,	GB,	GD,
	GE,	GH,	GM,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	KE,	KG,	KM,	KP,	KR,	KZ,

LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

PRIORITY APPLN. INFO.:

US 2004-605556P P 20040831

AB A reduced odor composition is composed of at least one cationic polygalactomannan or a derivative of cationic polygalactomannan having a weight average mol. weight (Mw) having a lower limit of 5,000 and an upper limit of 200,000, a light transmittance in a 10% aqueous solution of greater than 80% at a light wavelength of 600 nm, a protein content of less than 1.0% by weight of polysaccharide, and a trimethylamine content of less than 25 ppm in a 10% aqueous solution of the polymer. This composition is prepared by treating the polymer with reagents that reduce the mol. weight of the polymer, removing the water-insol. solid material, and removing odorous components, including trimethylamine (TMA) and other amines and low mol. weight components from the aqueous phase to produce a polymer that when used in a functional system such as household care, personal care or pet care products has reduced or no odor at acidic, neutral, or alkaline pH values.

IT 622850-21-9

RL: COS (Cosmetic use); TEM (Technical or engineered material use); BIOL (Biological study); USES (Uses)

(reduced odor in low mol. weight cationic polygalactomannan)

RN 622850-21-9 HCAPLUS

CN 1-Propanaminium, 3-chloro-N-ethyl-2-hydroxy-N,N-dimethyl-, chloride (9CI) (CA INDEX NAME)

$$\begin{array}{cccc} & \text{OH} & \text{Me} \\ & & | \\ & \text{C1CH}_2 - \text{CH} - \text{CH}_2 - \text{N} + \\ & & | \\ & & \text{Me} \end{array}$$

• cl -

L24 ANSWER 7 OF 33 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2005:1304732 HCAPLUS

DOCUMENT NUMBER: 144:171596

TITLE: Electrical conductivity of some cationic

polysaccharides. I. Effects of polyelectrolyte concentration, charge density, substituent at the

ionic group, and solvent polarity

AUTHOR(S): Ghimici, Luminita; Nichifor, Marieta

CORPORATE SOURCE: "Petru Poni" Institute of Macromolecular Chemistry,

Aleea Grigore Ghica Voda, Iasi, 700487, Rom.

Journal of Polymer Science, Part B: Polymer Physics

(2005), 43(24), 3584-3590

(2005), 43(24), 3584-3590 CODEN: JPBPEM; ISSN: 0887-6266

PUBLISHER: John Wiley & Sons, Inc.

DOCUMENT TYPE: Journal LANGUAGE: English

AB Electrolytic conductivity behavior of some cationic polysaccharides in water, methanol, and the mixts. water/methanol is presented. The polyelectrolytes investigated contain quaternary ammonium salt groups, N-alkyl-N,N-dimethyl-2-hydroxypropyleneammonium chloride, attached to a

SOURCE:

IT

RN

CN

RN CN

CMF C15 H34 N O2

```
dextran backbone. This study considers the influences of polymer concentration
     (1 + 10-6 < C < 1 + 10-2 \text{ monomol L-1}) and the charge d. (\xi
     = 0.48-3.17) modified either by changing charge distance (b) or dielec.
     constant of the solvent (ɛ) on polyion-counterion interaction in
     salt-free solns. Above the critical value, \xi c = 1, the variation of the
     equivalent conductivity (\Lambda) as a function of concentration is typical for a
     polyelectrolyte behavior. The conductometric data in water were analyzed
     in terms of the Manning's counterion condensation theory. The presence of
     longer alkyl chains at quaternary N atoms was found to have a negligible
     influence on the \Lambda values. The results show that the decrease of
     the medium polarity results in the decrease of the number of free ions and,
     consequently, of the equivalent conductivity values.
     874658-93-2 874658-96-5
     RL: PRP (Properties)
        (solvent and structure effects on elec. conductivity of cationic
        polysaccharides)
     874658-93-2 HCAPLUS
     Dextran, 3-(butyldiethylammonio)-2-hydroxypropyl ether, chloride (9CI)
     (CA INDEX NAME)
     CM
          1
     CRN
         874658-92-1
          C11 H26 N O2 . x Unspecified
          CM
               2
          CRN 874658-91-0
          CMF C11 H26 N O2
                Εt
        OH
HO-CH_2-CH-CH_2-N+Bu-n
                Εt
          CM
               3
          CRN
               9004-54-0
          CMF
               Unspecified
          CCI
              PMS, MAN
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
     874658-96-5 HCAPLUS
     Dextran, 3-(diethyloctylammonio)-2-hydroxypropyl ether, chloride (9CI)
     (CA INDEX NAME)
     CM
     CRN
          874658-95-4
          C15 H34 N O2 . x Unspecified
          CM
               2
          CRN 874658-94-3
```

Roy P. Issac Page 90

CM 3

CRN . 9004-54-0 CMF Unspecified CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

REFERENCE COUNT:

40 THERE ARE 40 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L24 ANSWER 8 OF 33 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

2005:1255400 HCAPLUS

DOCUMENT NUMBER:

145:126284

TITLE:

Catalytic reaction of glycidyltrimethylammonium

chloride with polysaccharides

AUTHOR (S):

Bendoraitiene, J.; Kavaliauskaite, R.; Klimaviciute,

R.; Zemaitaitis, A.

CORPORATE SOURCE:

Kauno Technologijos Universitetas, Kaunas, LT-50254,

Lithuania

SOURCE:

Chemine Technologija (Kaunas, Lithuania) (2005), (3),

61-67

CODEN: CTHEBZ; ISSN: 1392-1231

PUBLISHER: DOCUMENT TYPE: Technologija

Journal

LANGUAGE: Lithuanian

AB During the modification of several polysaccharides with glycidyltrimethylammonium chloride, the rate of epoxide consumption in main and side reactions was investigated. Polysaccharides (PS) with lower index of crystallinity were modified faster and easier. All investigated PS according to the amount of the quaternary ammonium groups obtained at the same conditions can be arranged in the following sequence: potato starch = maize starch = viscose > activated cellulose > native cellulose > flax = chitosan. As distinct from other PS, in the beginning of starch alkylation only the main reaction occurs.

IT 853065-51-7P

RL: SPN (Synthetic preparation); PREP (Preparation) (hccatalytic reaction of glycidyltrimethylammonium chloride with polysaccharides)

RN 853065-51-7 HCAPLUS

CN Starch, 6-[2-hydroxy-3-(trimethylammonio)propyl] ether, chloride (9CI) (CA INDEX NAME)

CM 1

CRN 853065-50-6

CMF C6 H16 N O2 . Unspecified

CM 2

CRN 44814-66-6 CMF C6 H16 N O2 OH

HO-CH2-CH-CH2 N+Me3

CM 3

CRN 9005-25-8 CMF Unspecified PMS, MAN CCI

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

L24 ANSWER 9 OF 33 HCAPLUS COPYRIGHT 2006 ACS on STN

2005:1106786 HCAPLUS ACCESSION NUMBER:

DOCUMENT NUMBER: 143:372822

TITLE: Cationic, oxidized polysaccharides in

conditioning applications

INVENTOR(S): Erazo-Majewicz, Paquita; Modi, Jashawant J.; Xu,

Zu-Fenq

PATENT ASSIGNEE(S): USA

SOURCE: U.S. Pat. Appl. Publ., 29 pp.

KIND

CODEN: USXXCO

DATE

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.

APPLICATION NO. --------------US 2005227902 A1 20051013 US 2004-821013 PRIORITY APPLN. INFO.: US 2004-821013 A cationic, oxidized polysaccharide or derivative thereof that has a mean average mol. weight (MW) between 50,000 and 1,000,000 and an aldehyde functionality content of at least 0.001 meg/g is used in personal care and household care compns. This cationic, oxidized polysaccharide is prepared in continuous or batch processes using hydrolytic reagents, oxidizing reagents, or combination of hydrolytic reagents and oxidizing reagents. Personal care or household care compns. are prepared by adding the cationic, oxidized polysaccharide to a personal care or household composition containing at least one active ingredient other than the cationic, oxidized polysaccharide of this invention. For example, a shampoo formulation containing a cationic, oxidized guar polymer (MW 50200, cationic degree of substitution 0.18) 0.5%, together with HPMC 0.5%, Amphosol CA 12%, Rhodapex ES STD 35%, and Glydant 0.5%, improved detangling of wet and dry hair by 62% and 35%, resp., when compared with the shampoo containing no polymer.

442123-80-0 779343-54-3, Hydroxybutyl guar IT

hydroxypropyltrimethylammonium chloride

RL: COS (Cosmetic use); TEM (Technical or engineered material use); BIOL (Biological study); USES (Uses)

(cationic, oxidized polysaccharides as conditioners and lubricants in cosmetics and household compns.)

RN 442123-80-0 HCAPLUS

CN Guar gum, carboxymethyl 2-hydroxy-3-(trimethylammonio)propyl ether, chloride (9CI) (CA INDEX NAME)

CM 1

CRN 210555-56-9

CMF C6 H16 N O2 . \times C2 H4 O3 . \times Unspecified

```
10/676,176>20/12/2006
          CM
               2
               44814-66-6
          CRN
          CMF
               C6 H16 N O2
        OH
HO-CH_2-CH-CH_2-N+Me_3
          CM
               3
          CRN
               9000-30-0
          CMF
               Unspecified .
          CCI
              PMS, MAN
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
          CM
          CRN
               79-14-1
          CMF
               C2 H4 O3
HO^{-}C^{-}CH_{2}^{-}OH
RN
     779343-54-3 HCAPLUS
CN
     Guar gum, hydroxybutyl 2-hydroxy-3-(trimethylammonio)propyl ether,
     chloride (9CI) (CA INDEX NAME)
     CM
          1
         779343-53-2
          C6 H16 N O2 . x C4 H10 O2 . x Unspecified
          CRN
              168011-04-9
          CMF C4 H10 O2
          CCI IDS
```

Roy P. Issac

 $H_3C-CH_2-CH_2-CH_2-OH$

D1-OH

CM

3

CRN 44814-66-6 CMF C6 H16 N O2

```
\begin{array}{c} \text{OH} \\ | \\ \text{HO---} \text{CH}_2\text{---} \text{CH---} \text{CH}_2\text{---} \text{N+Me}_3 \end{array}
```

CM 4

CRN 9000-30-0 CMF Unspecified CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

L24 ANSWER 10 OF 33 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

2005:640360 HCAPLUS

DOCUMENT NUMBER:

144:333362

TITLE:

Investigation on flocculation characteristics of

cationic polysaccharides: Novel polymeric

flocculants

AUTHOR (S):

Pal, Sagar; Singh, Ram Prakash

CORPORATE SOURCE:

Materials Science Center, Indian Institute Technology,

Kharagpur, 721 302, India

SOURCE:

Materials Research Innovations (2005), 9(2), 354-378

CODEN: MRINFV; ISSN: 1432-8917

PUBLISHER:

Matrice Technology Ltd.

Journal English

DOCUMENT TYPE: LANGUAGE:

AB Cationic polysaccharides, i.e., Cat AP, Cat AM, Cat Gly and Cat St, resp., were prepared from amylopectin, amylose, glycogen and starch by using 3-chloro-2-hydroxypropyltrimethylammonium chloride. Cat Gly is more branched that Cat AP, Cat St and Cat AM (from the intrinsic viscosity value). Also Cat Glycidyl shows a better performance in flocculation compared to Cat AP, Cat St and Cat AM. The enhanced efficiency of Cat Gly is because of its greater degree of branching and higher mol. weight Thus, with increase in branching and consequent cationic loading on them, the approachability of the contaminants towards the branched polysaccharides increases and thereby its increases the flocculation efficiency, in conformity with Singh's Easy Approachability Model.

RL: PRP (Properties); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (flocculation characteristics of cationic polysaccharides made from glycogen, amylopectin, amylose and starch)

RN 880254-01-3 HCAPLUS

CM 1

CRN 880254-00-2

CMF C6 H16 N O2 . x Unspecified

CM 2

CRN 44814-66-6 CMF C6 H16 N O2

```
FILE 'MARPAT' ENTERED AT 12:15:03 ON 21 DEC 2006
               STRUCTURE UPLOADED
L54
                D QUE L7
                D QUE L54
                D QUE L50
            928 SEA SUB=L50 SSS FUL L54
L55
            910 SEA ABB=ON PLU=ON L55/COM
L56
            863 SEA ABB=ON PLU=ON L51 AND L56
L57
                SAVE L49 ROYMARP1/A TEMP
                SAVE L50 ROYMARP2/A TEMP
     FILE 'WPIX' ENTERED AT 12:18:55 ON 21 DEC 2006
L58
           152 SEA SSS FUL L3
L59
            21 SEA SSS FUL L7
              O SEA ABB=ON PLU=ON L58 AND L59
L60
     FILE 'STNGUIDE' ENTERED AT 13:21:39 ON 21 DEC 2006
     FILE 'HCAPLUS' ENTERED AT 13:22:35 ON 21 DEC 2006
                E SOLHAGE F/AU
L61
             11 SEA ABB=ON PLU=ON ("SOLHAGE F"/AU OR "SOLHAGE FREDRIK"/AU)
                E NILSSON P/AU
            475 SEA ABB=ON PLU=ON ("NILSSON P"/AU OR "NILSSON P O"/AU OR
L62
                "NILSSON PER"/AU OR "NILSSON PER O"/AU OR "NILSSON PER
                OLA"/AU)
L63
              2 SEA ABB=ON PLU=ON L61 AND L62
     FILE 'STNGUIDE' ENTERED AT 13:24:36 ON 21 DEC 2006
     FILE 'HCAPLUS' ENTERED AT 13:44:22 ON 21 DEC 2006
                D SCAN L13
     FILE 'STNGUIDE' ENTERED AT 13:44:39 ON 21 DEC 2006
     FILE 'HCAPLUS' ENTERED AT 13:46:21 ON 21 DEC 2006
L64
              2 SEA ABB=ON PLU=ON (L61 OR L62) AND (CATION?(L)?SACCHARID?)
L65
              3 SEA ABB=ON PLU=ON
                                    (L63 OR L64)
L66
              3 SEA ABB=ON PLU=ON
                                   (L65 OR L13)
     FILE 'HCAPLUS, MEDLINE, EMBASE, BIOSIS, DRUGU, WPIX' ENTERED AT 13:47:16
     ON 21 DEC 2006
L67
            19 SEA ABB=ON PLU=ON
                                   SOLHAGE F?/AU
L68
           2729 SEA ABB=ON PLU=ON
                                    NILSSON P?/AU
L69
              5 SEA ABB=ON PLU=ON
                                   L67 AND L68
L70
              9 SEA ABB=ON PLU=ON
                                   (L67 OR L68) AND (CATION?(L) ?SACCHARID?)
L71
              6 SEA ABB=ON PLU=ON
                                    (L67 OR L68) AND (CATION? (L) POLYSACCHARID?
L72
            10 SEA ABB=ON PLU=ON (L69 OR L70 OR L71)
     FILE 'STNGUIDE' ENTERED AT 13:49:03 ON 21 DEC 2006
               D QUE L66
                D QUE L72
                D QUE L24
                D OUE L39
                D OUE L57
```

FILE 'HCAPLUS, WPIX, CAOLD' ENTERED AT 13:49:49 ON 21 DEC 2006

L73 49 DUP REM L66 L72 L24 L39 (6 DUPLICATES REMOVED)

ANSWERS '1-40' FROM FILE HCAPLUS ANSWERS '41-45' FROM FILE WPIX ANSWERS '46-49' FROM FILE CAOLD

D IBIB ABS HITSTR RETABLE L73 1-40

D ALL ABEO TECH L73 41-45

D BIB L73 46-49

FILE 'MARPAT' ENTERED AT 13:51:21 ON 21 DEC 2006

D QUE L57

D IBIB ABS QHIT L57 843-863

FILE HOME

FILE REGISTRY

Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 20 DEC 2006 HIGHEST RN 916134-56-0 DICTIONARY FILE UPDATES: 20 DEC 2006 HIGHEST RN 916134-56-0

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH June 30, 2006

Please note that search-term pricing does apply when conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

http://www.cas.org/ONLINE/UG/regprops.html

FILE STNGUIDE

FILE CONTAINS CURRENT INFORMATION.

LAST RELOADED: Dec 19, 2006 (20061219/UP).

FILE HCAPLUS

Copyright of the articles to which records in this database refer is held by the publishers listed in the PUBLISHER (PB) field (available for records published or updated in Chemical Abstracts after December 26, 1996), unless otherwise indicated in the original publications. The CA Lexicon is the copyrighted intellectual property of the the American Chemical Society and is provided to assist you in searching databases on STN. Any dissemination, distribution, copying, or storing of this information, without the prior written consent of CAS, is strictly prohibited.

FILE COVERS 1907 - 21 Dec 2006 VOL 145 ISS 26 FILE LAST UPDATED: 20 Dec 2006 (20061220/ED)

New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file contains CAS Registry Numbers for easy and accurate substance identification.

Issac 10/676,176

FILE MEDLINE

FILE LAST UPDATED: 20 Dec 2006 (20061220/UP). FILE COVERS 1950 TO DATE.

All regular MEDLINE updates from November 15 to December 16 have been added to MEDLINE, along with 2007 Medical Subject Headings (MeSH(R)) and 2007 tree numbers.

The annual reload will be available in early 2007.

This file contains CAS Registry Numbers for easy and accurate substance identification.

FILE EMBASE

FILE COVERS 1974 TO 21 Dec 2006 (20061221/ED)

* * 1; · · · ·

EMBASE is now updated daily. SDI frequency remains weekly (default) and biweekly.

This file contains CAS Registry Numbers for easy and accurate substance identification.

FILE BIOSIS

FILE COVERS 1969 TO DATE.

CAS REGISTRY NUMBERS AND CHEMICAL NAMES (CNs) PRESENT FROM JANUARY 1969 TO DATE.

RECORDS LAST ADDED: 20 December 2006 (20061220/ED)

FILE CAOLD

FILE COVERS 1907-1966

FILE LAST UPDATED: 01 May 1997 (19970501/UP)

This file contains CAS Registry Numbers for easy and accurate substance identification. Title keywords, authors, patent assignees, and patent information, e.g., patent numbers, are now searchable from 1907-1966. TIFF images of CA abstracts printed between 1907-1966 are available in the PAGE display formats.

New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file supports REG1stRY for direct browsing and searching of all substance data from the REGISTRY file. Enter HELP FIRST for more information.

FILE DRUGU

FILE LAST UPDATED: 21 DEC 2006 <20061221/UP>
>>> DERWENT DRUG FILE (SUBSCRIBER) <<<

>>> FILE COVERS 1983 TO DATE <<<

>>> THESAURUS AVAILABLE IN /CT <<<

FILE WPIX

FILE LAST UPDATED: 18 DEC 2006 <20061218/UP>
MOST RECENT THOMSON SCIENTIFIC UPDATE: 200681 <200681/DW>
DERWENT WORLD PATENTS INDEX SUBSCRIBER FILE, COVERS 1963 TO DATE

Issac 10/676,176

>>> YOU ARE IN THE NEW AND ENHANCED DERWENT WORLD PATENTS INDEX <<<

43 45 CT ...

FOR A COPY OF THE DERWENT WORLD PATENTS INDEX STN USER GUIDE, PLEASE VISIT:

http://www.stn-international.de/training_center/patents/stn_guide.pdf

FOR DETAILS OF THE PATENTS COVERED IN CURRENT UPDATES, SEE http://scientific.thomson.com/support/patents/coverage/latestupdates/

PLEASE BE AWARE OF THE NEW IPC REFORM IN 2006, SEE http://www.stn-international.de/stndatabases/details/ipc_reform.html and http://scientific.thomson.com/media/scpdf/ipcrdwpi.pdf

>>> FOR DETAILS ON THE NEW AND ENHANCED DERWENT WORLD PATENTS INDEX PLEASE SEE

http://www.stn-international.de/stndatabases/details/dwpi_r.html <<<

FILE BEILSTEIN
FILE LAST UPDATED ON JUNE 16, 2006

FILE COVERS 1771 TO 2006.

FILE CONTAINS 9,606,495 SUBSTANCES

>>>PLEASE NOTE: Reaction Data and substance data are stored in separate documents and can not be searched together in one query. Reaction data for BEILSTEIN compounds may be displayed immediately with the display codes PRE (preparations) and REA (reactions). A substance answer set retrieved after the search for a chemical name, a compounds with available reaction information by combining with PRE/FA, REA/FA or more generally with RX/FA. The BEILSTEIN Registry Number (BRN) is the link between a BEILSTEIN compound and belonging reactions. For mo detailed reaction searches BRNs can be searched as reaction partner BRNs Reactant BRN (RX.RBRN) or Product BRN (RX.PBRN).<<<

>>> FOR SEARCHING PREPARATIONS SEE HELP PRE <<<

- * PLEASE NOTE THAT THERE ARE NO FORMATS FREE OF COST.
- * SET NOTICE FEATURE: THE COST ESTIMATES CALCULATED FOR SET NOTICE
- * ARE BASED ON THE HIGHEST PRICE CATEGORY. THEREFORE; THESE
- * ESTIMATES MAY NOT REFLECT THE ACTUAL COSTS.
- * FOR PRICE INFORMATION SEE HELP COST

NRW

- * PATENT NUMBERS (PN) AND BABS ACCESSION NUMBERS (BABSAN) CAN NOW BE SEARCHED, SELECTED AND TRANSFERRED.
- * NEW DISPLAY FORMATS ALLREF, ALLP AND BABSAN SHOW ALL REFERENCES, ALL PATENT REFERENCES, OR ALL BABS ACCESSION NUMBERS FOR A COMPOUND AT A GLANCE.

FILE MARPAT

FILE CONTENT: 1961-PRESENT VOL 145 ISS 25 (20061215/ED)

SOME MARPAT RECORDS ARE DERIVED FROM INPI DATA FOR 1961-1987

MOST RECENT CITATIONS FOR PATENTS FROM MAJOR ISSUING AGENCIES (COVERAGE TO THESE DATES IS NOT COMPLETE):

```
US 20060247444 02 NOV 2006
DE 102005020105 26 OCT 2006
ΕP
        1717297 02 NOV 2006
JΡ
     2006302757 02 NOV 2006
WO
     2006116773 02 NOV 2006
GB
        2425654 01 NOV 2006
FR
        2884821 27 OCT 2006
RU
        2286328 27 OCT 2006
CA
        2545188 28 OCT 2006
```

Expanded G-group definition display now available.

This Page Blank (uspto)